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Major-General A. PITT RIVERS, F.R.S., *President, in the Chair.*

The Minutes of the last meeting were read and confirmed.

The following list of presents was read, and thanks voted to the respective donors:—

FOR THE LIBRARY.

- From J. PARK HARRISON, Esq., M.A.—Association Française pour l'avancement des Sciences. Compte rendu de la 8e Session, 1879.
From the LIBRARIAN of the GREY COLLECTION, South African Library, Cape Town.—Blue Book of Native Affairs, Cape of Good Hope, 1881.
From the BERLIN ANTHROPOLOGICAL SOCIETY.—Zeitschrift für Ethnologie, 1880, Heft 6.
From the SPANISH ANTHROPOLOGICAL SOCIETY.—Antropologico, Nos. 3, 4.
From the SOCIETY.—Bulletins de la Société d'Anthropologie de Paris. July-December, 1880.
— Journal of the Society of Arts, Nos. 1484, 1485.
— Proceedings of the Royal Geographical Society, May, 1881.
— Boletim da Sociedade de Geographia de Lisboa, 1880, No. 3.
— Proceedings of the Royal Society, No. 211.
— Transactions of the Asiatic Society of Japan, Vol. VIII, part 3.
VOL. XII.

From the ASSOCIATION.—Proceedings of the Geologists' Association, April, 1881.

From the ACADEMY.—Rozprawy i Sprawozdania z Posiedzen wydziału Matematyczno-przyrod-niczego Akademii Umiejet-ności, t. 7.

— Zbiór Wiadomości do Antropologii Krajowej wydawny stara-niem Komisji Antropologicznej Akad. Umiej. w Krakowie, tom. 4.

From the EDITOR.—“Nature,” Nos. 600, 601.

— Revue Scientifique, Nos. 18, 19.

— The Scientific Roll, No. 2.

Mr. HYDE CLARKE exhibited and briefly described a collection of stone and copper implements which had been sent to him by Mr. A. Papadopoulos Keramenes, of Smyrna. The collection consisted of eleven specimens from the district of Iconium (Konieh), ten from Smyrna, eleven from the Troad, and seven from Erythræ—all of stone; with two copper implements from the island of Chios or Scio.

The following paper was then read by the Author:—

NOTES *on the WILD TRIBES INHABITING THE SO-CALLED NAGA HILLS, on our NORTH-EAST FRONTIER OF INDIA.* Part II.¹
By Lieutenant-Colonel R. G. WOODTHORPE, R.E.

[WITH PLATES XVI TO XXII.]

IN my last paper I dealt only with the Angamis, or kilted Nagas, who, as I then stated, are distinguished from all the other Naga tribes by many striking characteristics. We now turn to the second great section of unkilted Nagas, which includes by far the larger portion of the inhabitants of these hills. It is a great pity that political and other considerations prevented any exploration beyond the great chain of the Saramethi Peaks, which would have enabled us to trace the tribes from the Naga Hills into the Burmese territory, and thus have decided which section, kilted or non-kilted, is more nearly allied to the tribes inhabiting the confines of Burmah. As I have before remarked, all the tribes included in the second section, of whom I treat to-night, diverge from each other considerably in many minor details, but the differences merge into each other a good deal, and the tribes all seem to belong to the same race, whereas time, proximity, intercourse, and the same geographical conditions seem alike unable to modify the sharp differences

¹ For Part I of this Paper, see p. 56.

which divide the kilted from the non-kilted Nagas, or assimilate them to each other.

The tribes commonly known as Rengmahs, Sehmahs, Lhotas &c., immediately adjoining the Angamis, all present the same type. They are shorter than the Angamis, and of square though fairly powerful build; their eyes are small and oblique, faces flat with high cheek-bones, a dirty sallow complexion, a sullen and often repulsive cast of countenance; all this added to their evident distrust of all strangers (so different from the Angamis), combine to make them a very unprepossessing race, and they are often further disfigured by frightful goitres, from which they suffer greatly. These tribes generally wear their hair either shaved off or cut very short, except for a large basin-shaped patch on the crown, where it is kept about 2 or 3 inches long, and combed down all round. Hair-cutting is done in a very primitive manner, the implement used being a *dào* and a small block of wood. This block is pressed down close on the head underneath the hair, which is then chopped off as close as may be, and it is wonderful how close it can be cropped in this way. In some instances which came under our notice a common field hoe was the cutting tool. Their combs are rather neatly made of bamboo.

Notwithstanding all my previous experience of hill-men, I was quite unprepared to find such a total absence of cleanliness among these tribes: as Dr. Brown remarks "their bodies are ingrained with the accumulated smoke, mud, and filth of a lifetime," and, with the exception of the Sehmahs, they are perpetually smoking dirty clay or wooden pipes, made on a similar principle to that of a Lushai woman's pipe, *i.e.*, the bowl is fitted with a small bamboo receptacle beneath for the tobacco juice, which is collected, mixed with a little water, and carried about in a small tube from which sips are occasionally taken.

The Rengmahs are particularly noticeable for the peculiar tail (Plate XIX, fig. 2) which they alone, I believe, of all the tribes wear. It is of wood, about a foot and a half long, curved upwards, broad at the base and tapering to the tip. Rows of white seeds are fastened longitudinally on the tail, and from it hang long tufts of black and scarlet hair. The broad part of the tail is fitted to the small of the back, and is suspended from the shoulders by a broad prettily embroidered belt (white, red, and black); a small cloth tied tightly round the waist further secures the tail. This tail is used in fight to signify defiance; they turn tails towards the enemy, and by hopping rapidly on each leg impart the defiant wag to the tail. "Turning tail" with them means the reverse of what it does with us. This tribe, as also many others, wears, as a waist cloth only, a small flap of cotton

cloth pendant from the waistbelt. Others wear a double flap, the inner end of which is drawn tightly up between the legs and secured at the back to the waistbelt. Some of these flaps are dark blue ornamented with cowries, in stars or stripes, others are white with broad red patches, or white with fine red lines; indeed this small garment varies in size, colour, and ornamentation with almost every village, certainly with every tribe. Some tribes go perfectly naked; one tribe we found close to the Sehmahs, and it is a curious fact that these naked people are not found in a group by themselves, but scattered about among the other tribes; thus we find a village of naked Nagas surrounded by decently clad people, and pass through several villages before coming again upon the naked folk. It is very seldom indeed that any women are seen in a state of complete nudity, and generally they are decently clad, much as the Angami woman already described. Some tribes, as Rengmahs, Lhotas, Hatigorias, &c., supplement their waist cloths by an apron about a foot square, profusely ornamented with cowries; other tribes, those in the hills adjoining the districts of Sibsagor and Jaipur, wear a long bright blue cloth, very much embroidered with red cotton, and decorated with beads, the inevitable cowries, &c. Very few, however, of the non-kilted tribes quite come up to the Angami in general appearance, when fully equipped in his war-paint: no decorations, though frequently more elaborate, seem so clean or handsome.

Among the other tribes the shields are smaller and less decorated than the Angami's, and among the tribes immediately adjoining the Angamis they are made of plaited bamboo, unadorned generally. A curious circumstance came under our notice on one occasion. We had been attacked by night, but had driven off our assailants, and burned their village which was hard by our camp. We remained in that camp for some days, till peace was concluded, but before that occurred we had to repel a second attack, this time by day, and I noticed that most of our assailants had fastened pieces of the stem of the plantain, or banana tree, to the exterior of their shields. A Khasia orderly I had with me explained that this had been done in accordance with an idea prevalent among his own people, and probably among most of the hill tribes ignorant of the exact nature of fire-arms, that a bullet is a piece of fire, whose effect can be counteracted by causing it to pass through a wet substance. Hence these shields of plantain stalks which contain a very large amount of moisture. How fatal this error, several Nagas proved. The spears and dâos among the Rengmahs, Sehmahs, &c., are very similar in appearance and size to those of the Angamis, some slight peculiarity in the shape of the spear

occasionally indicating the tribe using it. We find among these non-kilted tribes very good bows and crossbows of bamboo, carrying long iron-headed arrows, which are seldom poisoned. A Naga once told Lieutenant Holcombe that it was not at all the correct thing to use a poisoned arrow, unless, indeed, it was fired at a woman.

A peculiarity among all these non-kilted tribes, which again distinguishes them from the Angami, is the presence in their villages of a conspicuous building called the Bachelor's House (found also among the Garos). In the larger villages we find two or three of these houses in each village. In these live all the young men of the village, from the age of puberty till such time as they marry and set up a house for themselves. Among the Rengmahs, Lhotas, &c., the bachelor's house is not a very imposing-looking building, being only rather longer than the other houses in the village, all of which are small and poor as compared with those of most other tribes.

A practice common to all, though, as we have seen, not adopted by the Angami, is that of raising the house above the ground on posts or piles of bamboo (Plate XVIII, fig. 1). The house is divided generally into a front room, the floor of which is the ground itself, and here is the fireplace. Then we come to a room occupying the rest of the house, the floor of which is raised, and beyond the house is a small raised platform, a continuation of the floor, on which many of the household duties are performed, and where vegetables are dried, &c. The walls and floor of the houses are of bamboo matting, with thatched roofs. The crops are generally stored in rows of small raised houses just outside the villages. The hills here present long narrow ridges, along which are built the villages, the ridge itself forming the main street, and all the houses built on either side facing inwards. This plan of letting the front of the house rest on the ground, and running it out to the back on piles, does away with the necessity for levelling sites, and renders the houses more airy, though the smoke and dirt which thickly cover the interior of the houses, walls, and roof alike, render them anything but pleasant habitations to anyone more fastidious than a Naga. The fortifications of the Rengmahs, Lhotas, and Sehmahs are not so elaborate as those of the Angami villages, though they are capable at times of making a very good defence. The principal object in the centre of the village is the large sacred tree, on which are placed the heads of enemies taken in battle (Plate XVIII, fig. 2).

A few words concerning the manner of cultivating will suffice for all these non-kilted tribes, as it differs but slightly among them all. The process commonly known as "Jooming," from

the word "Joom," a field, a local term, consists in simply cutting down and burning the jungle on a hillside, and then cultivating on the natural slope of the ground thus cleared, instead of terracing as with the Angamis. These fields are of course not irrigated, and the fallen and charred timber is generally allowed to remain in the fields, lying across the slope, and helps to retain the soil which might otherwise be washed away during the rains. This mode of cultivating is common to the Lushais, Garos, all Nagas (except the Angamis) and across the Brahmaputra, the Miris, Mishmis, &c. I have previously referred to the crops raised by the Nagas generally, and also the cattle and domestic animals common to them all.

Passing along the hills in a north-easterly direction from the tribes just described, we come next to those known by the Assamese names of Hatigorias, Dupdorias, and Assiringias. The principal differences between these three are linguistic, and although all are far superior to the Lhotas in physique, manner, and bearing, and in the general well-to-do appearance of their villages, yet the Hatigorias (Plate XIX, fig. 1) bear off the palm in all these characteristics. Both men and women are, next to the Angamis, the best looking, best built, and most pleasing, perhaps, of the Naga tribes, with the exception of the inhabitants of the Yangmun valley. The Hatigoria women are remarkable for their good looks, many retaining them even in middle age. The dress of the three tribes is the same, consisting, for the males, of the small loin cloth, tied at the back, one end being brought round between the legs, and drawn up under the waistbelt, falls in front in a broad flap. These cloths are of various colours and patterns, and the Dupdorias fix small strips of brass in clusters down the edges of the flap, to give additional weight. The apron already described is also worn in full dress. The general decorations are the same as for the Rengmahs, &c., viz., the bearskin coronet (common also to the Angamis), cotton-wool bindings for the hair, and puffs for the ears, necklaces, &c. One ornament is peculiar to them, a defensive ornament for the chest. It is a long flat strip of wood about 15 inches long, narrow in the middle, but broadening towards the ends, and covered with coloured cane-work, cowries or white seeds, and adorned with a fringe of long red hair. It is worn on the chest suspended by a string round the neck. Two broad red and blue sashes also fringed with hair support at the back the *dão*, and a small bucket for carrying panjis. The spears are similar to those already described. The *dãos* are similar to those of the Angamis, but among the Assiringias is found an approach to the long hair-tufted handles and broad blades common among the more eastern tribes. The shields are small, and either of canework or

of thin pieces of wood or hide painted black with white circles and spots on the front, and occasionally decorated with plumes. The Assiringias wear, in war-dress, tall conical helmets, adorned with boars' tusks, and two straight plumes of hair, one on each side, leaving the apex of the helmet bare. The clothes of these three tribes are many coloured, dark blue, with red and white stripes, or dark blue only, or red only, &c., and are frequently adorned with tufts of crimson and white hair sewn in rows at intervals along the stripes of the cloth.

The women's dress consists of a small petticoat of dark blue, a cloth of the same colour being thrown over the shoulders. They wear large brass rings on each brow, supported by a string passing round the head (Plate XX, fig. 1). Sometimes these rings pass through the upper portion of the ear, but generally they simply hang on the temples. The lobe of the ear supports large thick oval or oblong-shaped pieces of a crystal obtained from the plains. The women all tatto slightly: fine lines are drawn on the chin, the outer ones being tattooed from the corners of the mouth; the front of the throat has a few crossed lines on it, three arrow-headed lines are tattooed on each breast, running up to the shoulders, and a fine diamond pattern runs down the centre of the stomach. The calf of the leg, from about 3 inches below the knee, is also tattooed with diagonal lines (like cross gartering): they also, like Khasia women, frequently wear cotton gaiters. The wrists are also tattooed with stars and stripes. The women's necklaces, are, as usual, beads or large pieces of shells strung on cotton.

Men, women, and children all smoke pipes similar to those described earlier.

The villages, as a rule, occupy the most commanding points along the ridges, and the approaches to them are exceedingly pretty. Broad roads, bordered with grass and low shrubs lead up through avenues of fine trees to the main entrance, which is generally very strongly guarded by two or three panjied ditches running right across the ridge and stockaded on the inner bank. The stockades are strongly built of a double line of posts supporting a wall of interlaced bamboo, and are capable of offering a good resistance. The outermost ditch is generally about 200 or 300 yards from the village, the second being situated between it and the one surrounding the village. The gate through the stockade of this last ditch into the village is cut out of one huge block, and is frequently 4 or 5 feet broad and 6 feet high. A large gable roof is constructed over it, giving it a great resemblance to our old lychgates. Look-outs are built commanding the entrances, and in some cases little huts are constructed in large trees outside the most advanced stockades on the main roads,

communications being preserved with the interior by means of long ladders and causeways. Passing through the gate into the village we find ourselves before the "morang," or bachelor's house (Plate XVII, fig. 1), a large and most peculiar looking building, appearing to be all roof, which springs from a small back gabled wall of bamboo about 5 feet high, and 6 or 7 feet broad. The ridge rises rapidly from this to the front, till it attains a height from the ground of 25 or 30 feet, the eaves resting on the ground on either side. The front is closed in with a semicircular wall of thatch, a small door about 4 feet high giving admittance to the building, which, as this is generally the only opening, is necessarily somewhat dark. As the eye gets accustomed to the gloom, though, we find that the house is divided into two parts by a low wall formed of a log of wood over which a thick bamboo mat is stretched. One-half of the house has a matted floor, and is provided with a hearth, and planked sleeping places round it, and here the young men live; but the other half is unfloored and is intended for the reception of casual visitors dropping in for a chat. We also make out that the principal uprights are carved with large figures of men, elephants, tigers, and lizards, &c., roughly painted with black, white, and a reddish brown. Arranged round the walls are skulls of men and animals, and skilful imitations of them made by cutting and painting old gourds. The ridge of the "morang" projects a few feet in front and is ornamented with small straw figures of men and tufts of straw. Outside each "morang" is a large platform of logs of wood on which the young men and their friends sit and smoke through the day, and hard by is an open shed, in which stands the big drum, formed out of the trunk of a huge tree hollowed out, and elaborately carved and painted in front, after the manner of the figure-head of a ship: it is furnished at the other end with a straight tail (Plate XVI, fig. 2). The drum is raised from the ground on logs of wood. It is sounded by letting a heavy piece of wood fall against it, and by beating it with double headed clubs. This drum calls the villagers together for war, or is beaten on festive occasions and gives forth a deep booming sound. Sometimes when an attack is expected from some neighbouring village, the drum is beaten at intervals throughout the night, in the hope that if the attacking party is on the way to the village it will, on hearing the drum sounding, consider that the villagers are on the alert and return home. In large villages there are two and even three "morangs" with their neighbouring drums. The other houses in the village are large and long, the front part resting on the ground, the back, as usual, being supported on bamboo piles, with platforms at the back and sides, in which many of the household duties are

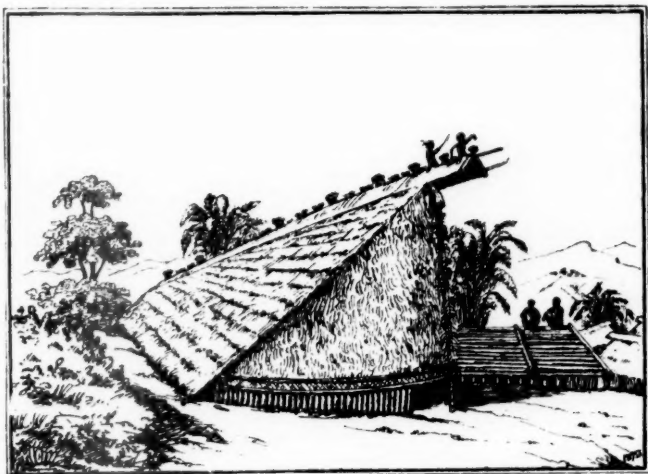


FIG. 1.

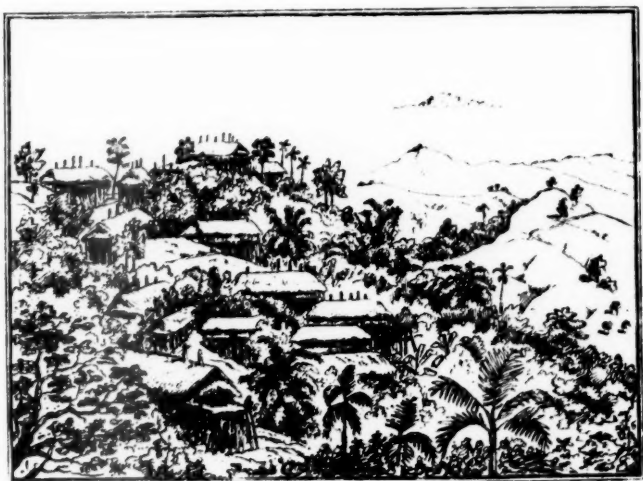
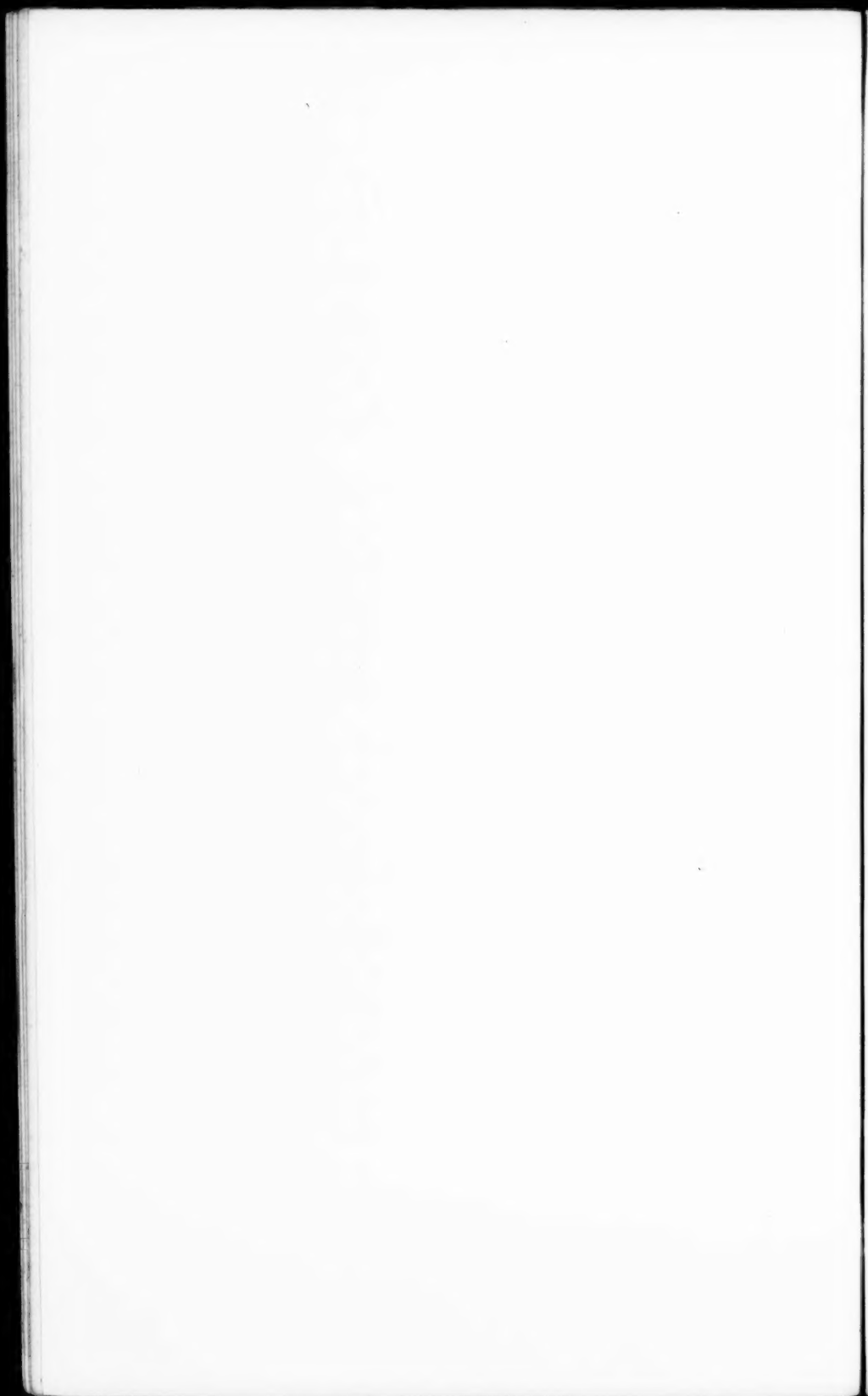


FIG. 2.



performed. There is a large open verandah in front, and the interior is divided into two or three rooms. The Hatigoria houses are the largest and best built, and are arranged most regularly, and closely adjacent on either side of long streets. The front gables project considerably, those of opposite houses nearly meeting over the roadway. In front of the houses are rows of skulls, and in one or two of the front verandahs we notice rows of curiously carved and painted posts about 3 feet high. These, we are told, are put up on the occasion of the owner of the house giving a big feast, and thereby proclaiming himself a man of substance. A village contains from 200 to 500 houses.

The bodies of the dead are wrapped in mats and disposed on platforms roofed over and fenced in. All the personal decorations and clothes of the deceased, his shield, &c., are arranged about the platform or fence. The ground around is sometimes panjied as a protection against the attacks of wild animals. The gourds and other domestic utensils belonging to the deceased are suspended from this platform for his use in the next world, holes being made in them to render them useless to any who might otherwise be tempted to steal them in this world. These bodies are placed in groups on either side of the road between the two outer stockades, and consequently it is not always pleasant travelling along this road. Outside one village, called Boralangi we saw the body of a young man only a few hours dead stretched on a small "maichan"* without any covering except his cloth. This circumstance, and the fact that he was lying far from the regular resting place of the dead, excited our curiosity, and we were informed that he and another man from the next village had been at Boralangi the day before to attend a merry meeting, and had made too merry with the Naga liquor: in consequence of which, the night being dark and the path just outside the stockade a narrow and tortuous one, and a forest of long panjis, he had tripped and fallen, and a panji had passed right through him from side to side below the ribs, and he had died a few hours later. My informant added that men who died violent deaths in this way by accident were simply tied upon the spot where they fell, without covering or ornament, as their death is attributed to their having incurred the special disfavour of their gods. This custom obtains among many of the tribes.

The Hatigorias, as road engineers, far surpass their neighbours. Their roads are constructed with due regard to the easiest gradients, and are not carried up and down over every little hillock. The steeper parts are stepped and paved to prevent the rain washing channels in them, and in the gentler gradients cuts are made across the road at every change of inclination or

* *i.e.*, platform of bamboo.

direction in the most scientific manner to carry off the water down the hill side. Among some of the other tribes, the Lhotas, for example, the paths are narrow, never avoid obstacles and often seem made expressly to carry off the drainage of the country around. The mode of repairing them when the narrow path has been worn into a deep furrow, is to fill the latter with long tree trunks, the wobbling of which, and the steep slope at which they are often laid, making them very unsafe.

We pass on now to the tribes lying to the north-east of these we have just been considering, and they may be designated as the tribes inhabiting the hills bordering the Sibsagor district. Here we again find several villages, similar in every way to their neighbours, yet occupied by naked Nagas, and we find tattooing beginning to appear among the men, though not as yet on the face; only slightly on the arms and breast, a few fine lines running up from the navel and diverging on either side over the breast. The women's legs are tattooed below the knee with a cross gartering, and some have a cross tattooed on their stomachs, the navel being the centre and the arms of the cross all equal, the pattern of each arm being a long narrow oval bordered by two diverging lines four or five inches long. These naked Nagas are, as a rule, fine looking people, fair as to colour, and with some claim to good looks. The men's heads are shaved with the exception of a long tuft from the crown to the forehead, over which it lies. They wear nothing beyond belts of straw very tightly twisted round their waists. The women wear a strip of cloth about a foot wide round the hips, the upper part of the body being unclothed like the Garo women; they wear innumerable brass rings on the right arm, and the usual bead and shell necklaces. Both men and women chew pân to a great extent. The neighbouring Nagas differ only from this naked tribe by wearing a small waist cloth or rather flap made of a woody fibre woven into a coarse cloth. A few clothes thrown loosely over the shoulders are, of course, worn in cold weather. A general description of the villages, &c., will suffice for all here. The plan of the village is somewhat similar to that of the Hatigorias, &c., except that the fortifications are not so elaborate. The "Morangs" (bachelors' houses) are much more elaborately carved and ornamented than in any other part of the hills: figures of elephants, deer, tigers, &c., being carved on all the principal uprights, and, in some, life-sized figures of men and women, clothed and tattooed after life. The weather boards are carved with figures of birds and fishes, and painted in great detail with red, black, and white stripes, circles, and dots. The morangs are divided into three parts: first, the front verandah enclosed at the sides; second, the body of the house, containing the sleeping apart-

ments and storeroom on either side of a central passage (each sleeping room contains four planked bed places arranged in two like the berths of a ship, one above the other, on either side of a small fireplace); third, a large room open to the small back verandah, this room contains a fireplace with a few planks as seats around it, and is floored with immense hollowed beams. In the back verandah, which has a low circular roof, are hung all the trophies of war and of the chase. The big drum is also kept here. A curious custom prevails in this district of decorating the skulls of enemies taken in battle with a pair of horns, either buffalo or methua, and failing these, with wooden imitations of them. The houses in these villages are similar to those already described, being raised from the ground, the ridges instead of being straight are hog-backed. They are very closely packed on either side of long streets, the eaves touching, and the projecting front gable-ends of opposite houses often overlapping each other: the result is that even in the middle of the brightest day the streets are wrapped in gloom so great as to make it difficult to distinguish objects in the front verandahs, the few flecks of sunlight which fall upon the roadway here and there only serving to make the darkness greater. In the front verandah of some of the houses is a small enclosed room containing a bed and fireplace. When an old woman is left a widow and without a home, her son (or nearest relation) provides her with this little chamber. Here, as I think very generally in these hills, a youth having taken a fancy to a girl, either of his own or neighbouring village, has to serve in her parents' house for a certain time, varying from one to two or more years according to agreement, before he can marry her, as was Jacob's case. Outside the villages, within a circle of staves surrounding two trees supporting a small platform, the harvest festivals take place. Large quantities of garlic are grown in these villages in small fenced gardens, panjis studding the ground between the plants.

In some villages the skull trophies are not placed in the morang, but are placed in the front verandah, decorated as usual with horns. The eldest brother in a family, in addition to his own trophies gets the skulls taken by his brothers, also to decorate his portals. Many of the verandahs contain a number of Y-shaped posts carved with human figures and methua heads. These signify that the occupant of the house has been the giver of a big feast.

The dead are sometimes, as at Tablung, &c., wrapped tightly up in mats, and, resting in a long canoe-shaped cradle of wood, the ends projecting and carved, are placed among the upper branches of big trees just outside the villages. In other parts they are placed in "maichans" inside small houses, the beaks

at the end of the coffin projecting through the front of the house. A small window is left at the side, I believe for the convenience of the dead man's spirit. These dead-houses, unlike the custom obtaining among the other tribes, are not outside the stockade, but actually within the village precincts, close to the dwellings; so in order to obviate any unpleasantness from the newly dead, fires are lighted in front of their resting places, the fuel being chaff and rice straw, which smoulders slowly, a plentiful supply of smoke being obtained by heaping over the fire a pile of green boughs and leaves.

The men of this tribe tattoo on the chest after taking their first head. The pattern consists of four lines which spring from the navel diverging as they ascend, and turn off into two large concentric curves over each breast, the lines broadening out to about one inch in width at the middle of the curves. The tattooing is done by scraping the skin with a *dão*, a sharp stone, and rubbing in very finely pounded rice. The colouring matter is the juice of a berry which is crushed over the powdered rice and leaves an indelible black stain.

In the valley of the Yangmun river is an interesting tribe of whom I should like to have learned more than we did, but our time and our supplies were running short, and we could not remain to explore more than the entrance of the valley. The men are tall, well built, and in many cases handsome. Their dress and accoutrements are similar to those of their brethren farther east whom I shall describe directly: their hair is dressed in a similar manner to that of the naked Nagas, *i.e.*, cut close everywhere except on the top of the head, where a thick tuft falls over the forehead, another long tuft hanging behind from the crown, the latter twisted up into a tail with a band of grass. There is very little, frequently no tattooing among these men till they approach the naked Nagas and adjoining tribes, when a little tattooing on the face and limbs is observable. The women in the Yangmun valley have a very peculiar mode of cutting their hair: it is kept so closely cut as only to leave a dark shade on the head: a narrow space on each side of the head being shaved perfectly clean from the temple to the crown. They wear very little clothing, a small belt of very fine leather thongs, to which in front are attached the upper corners of a long, narrow slip of cloth about 30 inches long and 6 inches broad; from this point it falls perfectly free and loosely round the loins and buttocks.

Very quaint designs are carved in slight relief on the planks forming the front walls and doors of the houses, the designs being further brought out by a judicious use of black, brownish red, yellow, and white pigments. The dead are placed on a

"maichan" raised about 4 feet from the ground, and covered with a low roof which gradually tapers out in front for about 20 or 30 feet. They build a large number of granaries in their fields for the reception of the crops when first gathered. These houses are long low structures on piles, having their roofs tapered up for a considerable length, at one end only, or at both. These curious buildings, dotting the bare hill-sides, and standing out against the dark red soil, look at a distance exactly like huge crocodiles lying about. Another striking feature in the landscape is a curious erection seen near most villages, which is visible a very long way off. It looks at a distance like a large silver chevron turned upside down. It is made of split pieces of wood with the white face turned outwards, placed close together vertically, and fastened to large curves of cane or bamboo, suspended between three trees: the whole length varies from 40 to 50 feet, and the average width is 6 feet, widening to 12 feet in the centre. We could not arrive at the meaning of these erections as we were here quite beyond interpretation; but they were always put up facing towards a village with which their builders were at war: there was no idea of fortification about them. In one village here we saw a very fine stone viaduct across a small ravine 50 feet in length and 20 feet in height with a most scientific culvert through it. As we leave the Angamis and proceed eastwards, we find the spears and shields getting smaller and the dâos getting larger till we reach in Yangmun and its neighbourhood the largest sized dâo, the blade being triangular in shape, $1\frac{1}{2}$ foot long, $1\frac{1}{2}$ inches broad at the handle, and about 4 inches at the end. The handle is long. Bows and cross-bows are common everywhere.

We now come to the tribes in the Jaipur district, including the men of Ninu, &c., who were concerned in the outrage on the Survey Party in February, 1875, when, in the incredibly brief space of a couple of minutes, Lieutenant Holcombe and 80 men were most treacherously murdered, and fifty-one others wounded, out of a total of 197 all told: the remainder of whom only escaped by the bravery and presence of mind of Captain Badgley, the Survey Officer, who, though severely wounded by cuts on both legs and arms, brought them safely away after a four days' march through the hills, carrying the wounded out with him. For this service I believe he has received not so much as even the thanks of Government.

The men are of average height and nearly all well made and well developed, and, as in the case with all their tribes, their complexion comprises every shade of brown. They would be good looking as a rule, but for the tattooing which in some cases, when done heavily, makes their faces almost black: in others

the tattooing is blue, and then the bare portion of the face, especially in those of fair complexion, appears pink by contrast. The tattooing on the face is called "Ak" (Plate XIX, fig. 3), and consists of four continuous lines carried across the forehead, round and underneath the eyes up to the nose, back over the cheeks, and round the corners of the mouth to the chin: rows of spots follow the outside lines, and two fine lines mark out the nose in a large diamond space. Some tribes, the Mutanias and Sermamens, do not tattoo much on the body, but their thighs are tattooed with various patterns; others, the Borduarias and Namsangias (Plate XX., fig. 2) are not tattooed at all on the face, but their shoulders, wrists, bodies and thighs are covered with devices. All the men of these tribes (Plate XXI) dress their hair in a similar fashion, *i.e.*, it is shaved just above the ears, the remainder being taken back off the forehead and face, and tied in a knot behind; through this knot are passed curved strips of horn carrying waves of red and white or black hair. Some men have a small moustache, but few show anything like a beard.

As we proceed eastwards from the Angamis we find a taste for helmets gradually developing, and it culminates among the tribes now under consideration. The helmet is conical in shape, and made of plaited cane, either plain or having patterns of coloured straw worked over it. A large plume of black or red hair passes over the helmet from front to rear, and long horns, carrying large feathers or tufts of hair, spring from the sides. Some helmets are covered with leopard or bear skin. Another headdress is a circular band of coloured cane and straw ornamented with bits of a large shell and a fringe of hog's hair which lies on the forehead. Their ear ornaments are generally strings of beads pendant from a piece of shell fitted to the ear, and terminating in long tufts of hair which fall over the chest. They have another pretty one made of alternate tufts of red, white, and black hair, radiating from a centre of yellow straw work, which is fixed in the lobe of the ear. From the shoulders to the elbows the men encase their arms in many rings of red and yellow cane, very large at the shoulder, gradually decreasing towards the elbow: these give an appearance of great breadth to their shoulders, an effect which is heightened by the bands of black or yellow cane which are drawn tightly round the waist. These canes are of great length: one man had as many as 19 turns round his waist giving a total length of cane of over 40 feet. Large belts, very broad at the back, fastening in front, and made of plates of polished brass or of coloured cane and cowries are also worn. A broad piece of blue cloth hangs from the waist ornamented with red fringes and rows of white seeds. On the

wrists are worn deep bracelets of cowries, and below the knee strings of the same are also tied. All these decorations, as I have before remarked, are intended to be defensive as well as ornamental. These Nagas are very skilful in devising little adornments from palm-leaves, making coronets, wristbands, and anklets of them. A curious custom prevails at a village called Voka, and probably also among the neighbouring villages: it is this—that till a young man is married he goes perfectly naked, but he at once adopts a waist cloth when he takes a wife. Every man carries about with him a small basket, a bag for his food, pân, &c. At one village every man carried against his apron a small bamboo cup full of live embers of sago palm bark placed in a layer of sand. This was for the purpose of supplying a pipe-light at any time, I was told. The weather was warm, so that it was not to supply heat to their bodies, as is done in a similar way in Cashmere in cold weather.

The women of these Eastern tribes (Plate XXII, fig. 2) are short in stature, and their figures are rather remarkable for strength than beauty. The shoulders are tattooed with diamond patterns, three horizontal lines are taken across the body above the breasts, between which eight lines go down to the waist narrowing gradually to a point: the navel is the centre of a Maltese cross, each arm about five inches long consists of three lines with a pointed finial. The leg tattoo is drawn with an admirable sense of fitness, that on the thighs consisting of close vertical lines and on the calves of horizontal lines, a small break occurring in each on the shin bone: this has the effect of increasing the apparent rotundity of the legs below the knees. The operation of tattooing is sometimes attended with fatal results. I was once asked to visit a poor little girl about ten years old whose legs had been tattooed a few days before. The operation had resulted in inflammation and mortification of the limbs. I went into the house where the poor little thing—sad votary of fashion—lay screaming with pain. The sores were dreadful, both legs apparently rotting away below the knee. I was only passing through the village, my camp being some miles away and could do little for her, and I fear she died a painful death. Fashion, whether in tight lacing or tattooing, claims its victims all over the world. The dress of the women consists principally of a very small petticoat 26 inches long and 6 inches deep, ornamented with bells, beads, and shells; this only comes a little more than half-way round the body leaving the right thigh bare,—it is attached at the ends and middle to a string passing round the waist. Sometimes a small cloth is worn on the shoulders. Many strings of beads fall low over the breasts. Small fillets of coloured straw adorn their brows, and

massive white metal rings are worn above the elbow. Their ear ornaments are small strings of beads passed through various holes.

The arms are, as usual, the *dào* spear and crossbow. The first is a most formidable weapon, the blade triangular, about 8 inches long, straight at the back, and 4 inches wide at the top, narrowing gradually towards the handle, which is 2 feet long and ornamented with tufts of coloured hair; sometimes there is a semicircular projection at the back of the blade. The spears are not such handsome or formidable weapons as those further west, due probably to the fact that the *dào*, and not the spear, is here the principal weapon of offence. The spear heads are small, and the shaft, though short and slender, is strongly made of bamboo and decorated with red and black hair in various fashions. The shield is small, about 4 feet long by 2 feet wide, made of buffalo hide decorated along the upper edge with a fringe of red hair, and on the face with some tassels of grass. Every man carries in a small basket or horn at his back a supply of panjies. Some wear a kind of defensive armour in the shape of a leathern corset, which overlaps on the chest, and is kept up by means of straps which pass over the shoulders. Gongs, which probably come indirectly from Burmah, are largely used by these tribes, and they cast bells in little clay moulds, the material being apparently a kind of gun-metal, and occasionally brass. The women carry long iron walking staves foliated at the upper end. Another lighter and prettier walking-stick among the Yangmun people is made of sago palm, decorated with brass rings and furnished with an iron spike.

The villages (Plate XVII, fig. 2) are not always well placed for defence against rifles, being commanded from some neighbouring height; but some, such as Bor Bansang, Senua, Niao, &c., are exceedingly well placed, occupying the highest points of the ridges on which they stand, and commanding all the approaches to them. The defences consist of double stockades made of interlaced bamboo and cane, with panjied ditches. The houses are generally scattered up and down without any attempt at order, and are half hidden among the trees, which are not, as elsewhere, cut down to clear a village site, such only being felled as interfere with the houses: these are built on the unlevelled ground, the floor being carried out to the rear on piles, the back verandah being frequently 20 or 30 feet from the ground. The house is divided into an entrance hall, where the owner's weapons hang, also skulls of animals taken in the chase, and beyond are several small apartments, terminating with a large open verandah. The principal uprights project some two



FIG. 1.



FIG. 2.

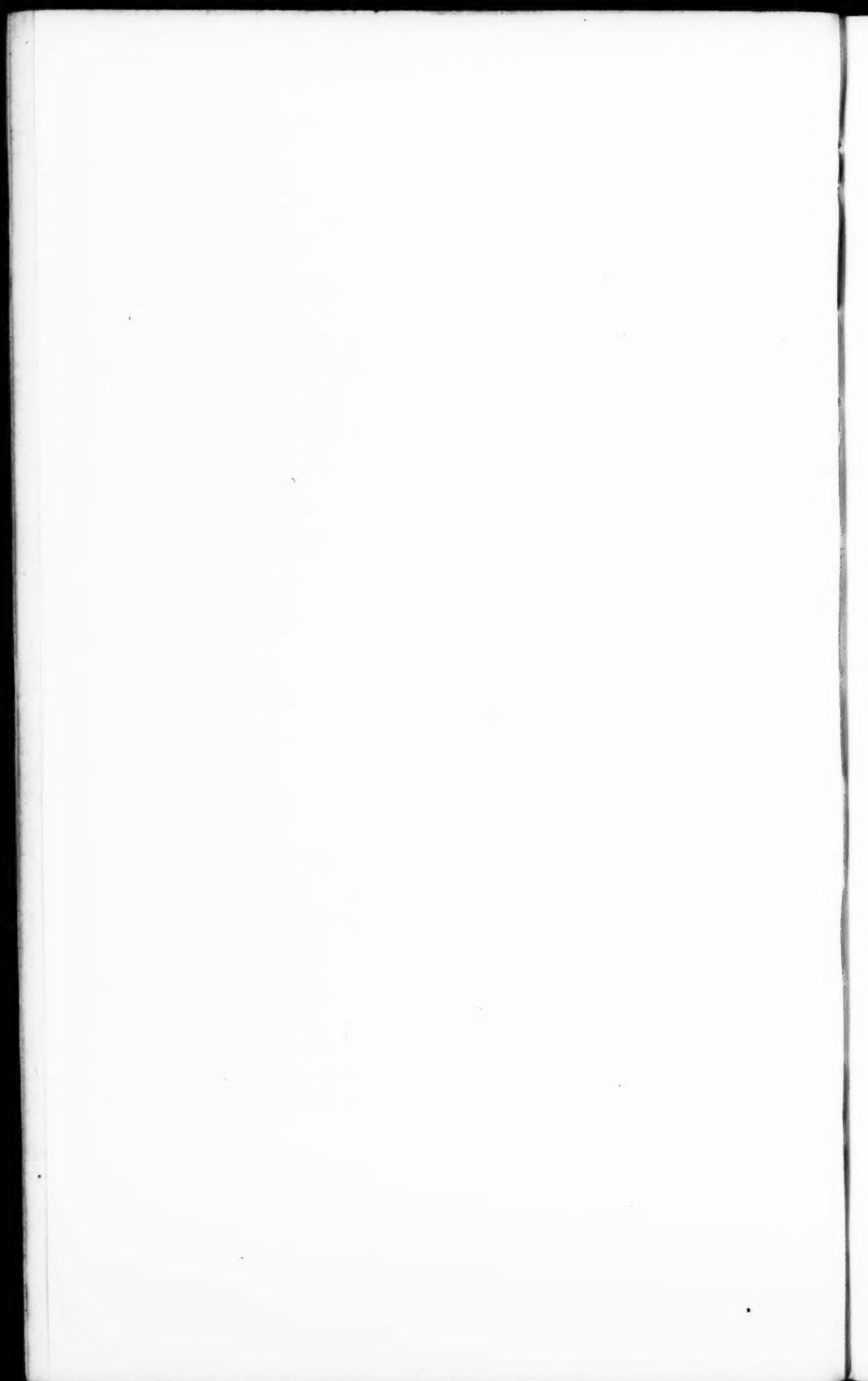




FIG. 1.



FIG. 2.



FIG. 3.



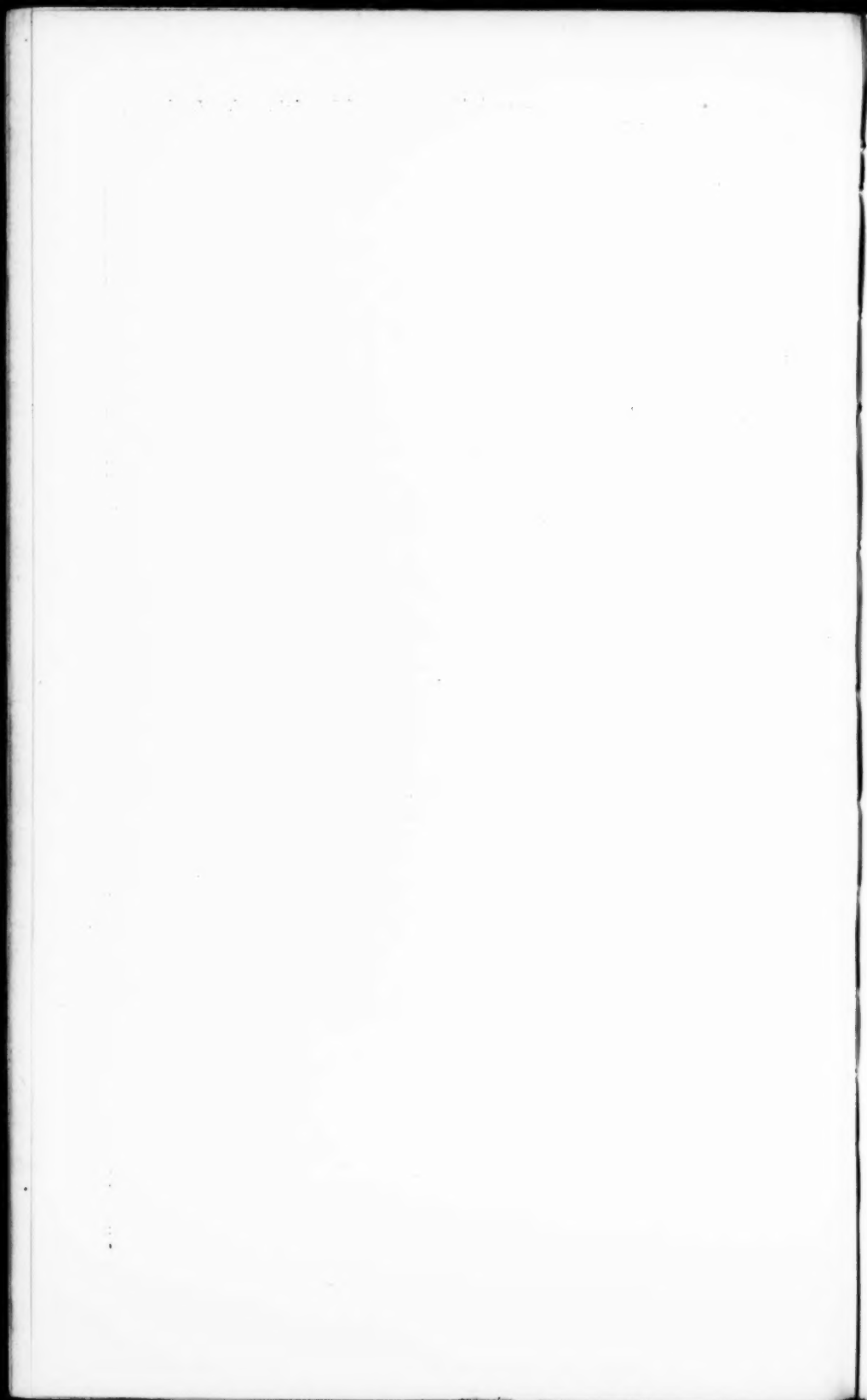


FIG. 1.



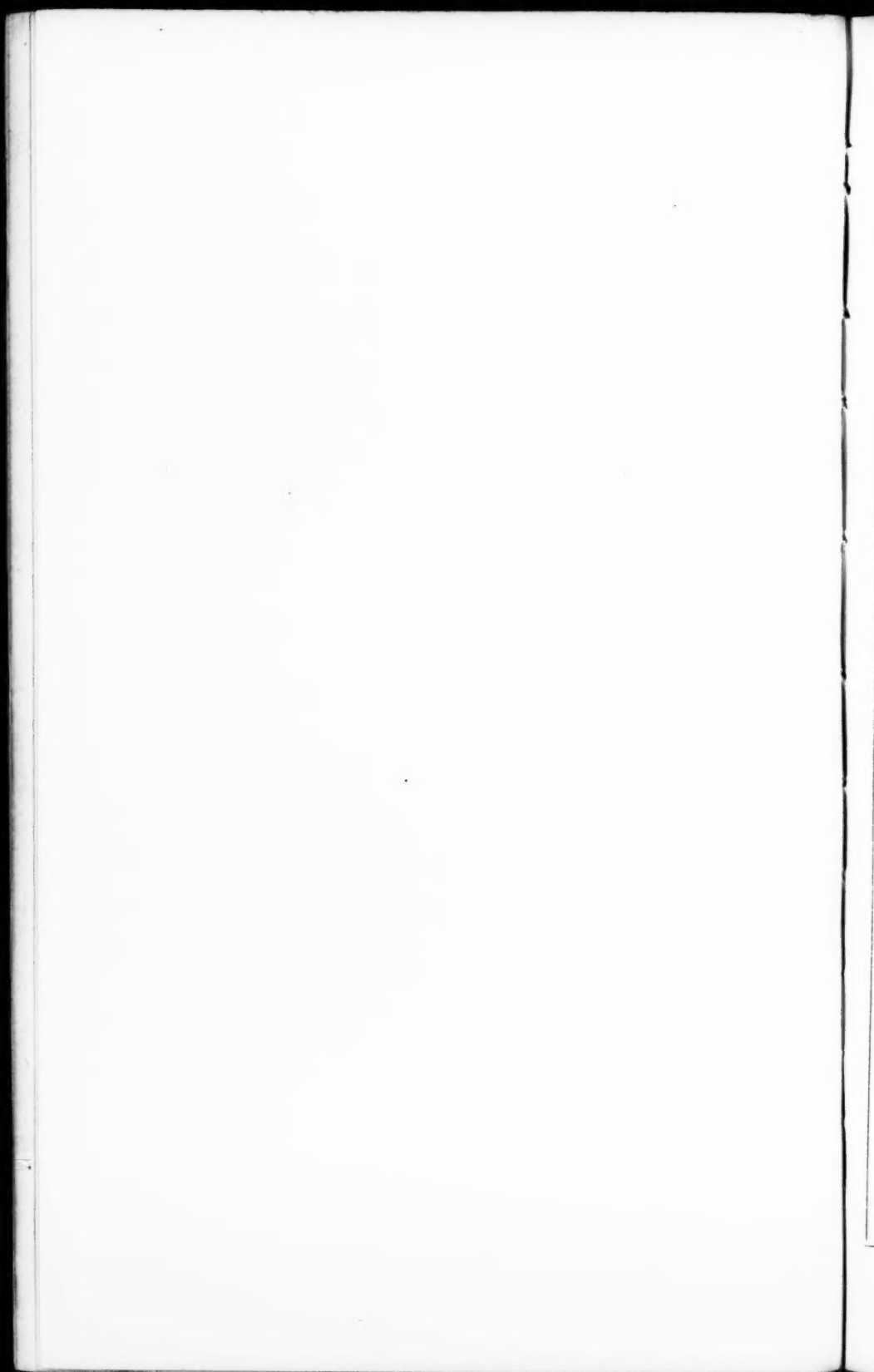
FIG. 2.

ASSIRINGIA AND NAMSANGIA.





SOIBANG, VANGAM OF CHOPNU.



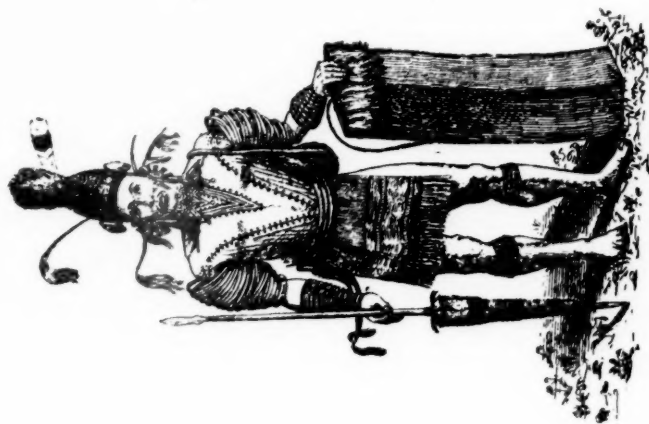
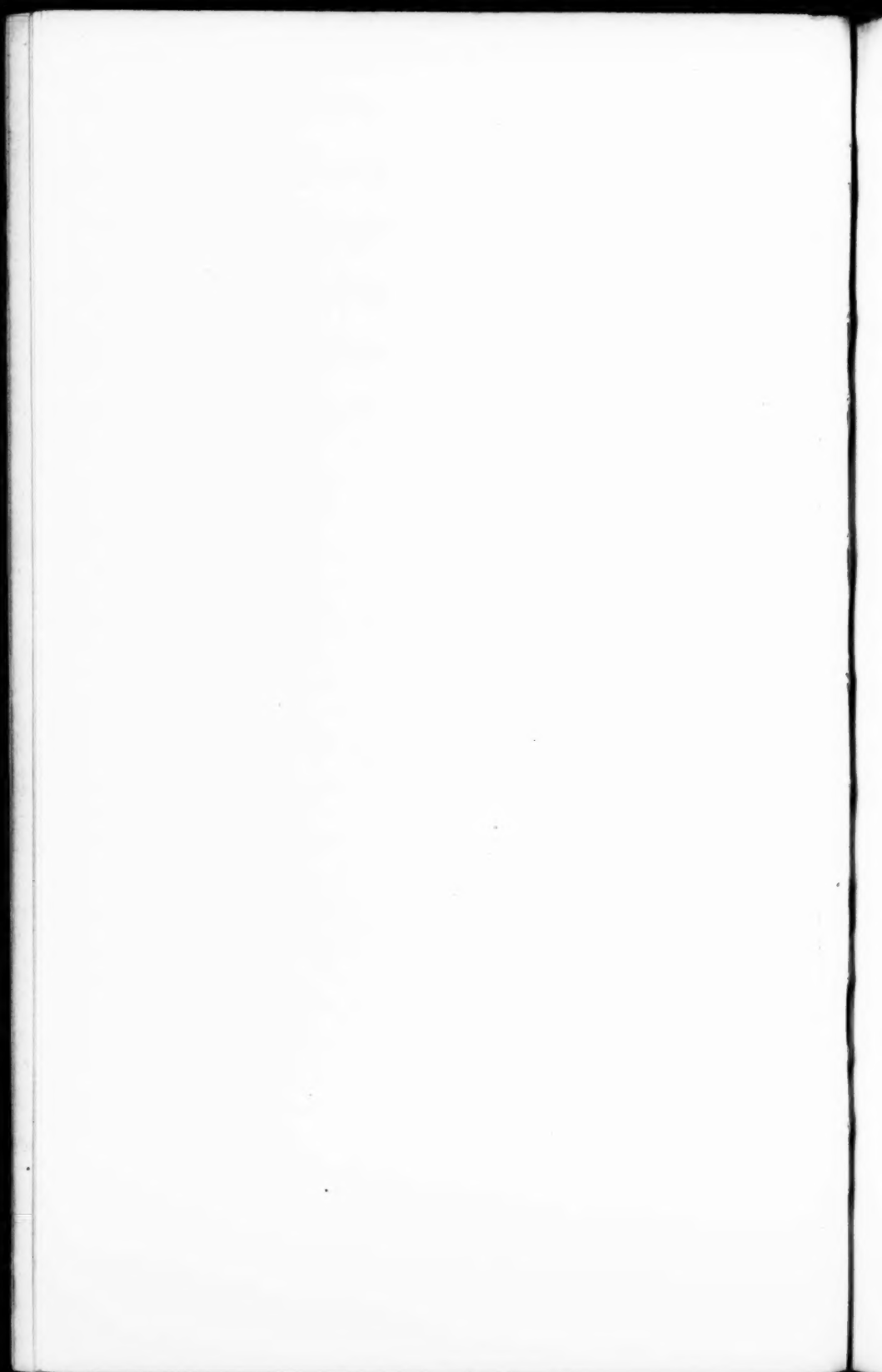


FIG. 1.



FIG. 2.

BORDURIA NAGA, AND WIFE OF SOIBANG.



or three feet through the ridge of the roof, this portion of each post being thatched to keep the rain from trickling through into the house. This thatch is ingeniously worked into figures of men, &c. The reason given for this projection of the posts is that, as the part below the ground decays, it can be cut off and the post lowered without damage to the house. The Vangam's, *i.e.*, headman's house, is always very large, and built on the most level site in the village. It is generally about 200 feet long by 40 or 50 feet broad, and contains two large halls, one at either end, the intervening space being divided up into several apartments and storerooms arranged on either side of a central passage. Each of the women's apartments has its own door of exit, and small verandah. On one side of the entrance hall is the drum—similar to that of the Hatigorias. Opposite the drum is the rice pounder, a long log squared, with small holes, in which the rice is pounded out from the husks. The other hall is kept as an audience hall, where the chief receives his friends. It has a raised and matted floor, the rest of the house being on the bare ground. This hall opens into a large verandah; every house is furnished with a few small stools on short legs, and one or two large beds, which, with their legs and a bolster, are carved out of one log. Tables made of cane work shaped like huge inverted wine glasses, and about two and a half feet high, are used at meal times. In each village are one or two "morangs," in which are kept the skull trophies, placed in rows in a large sloping tray on the verandah. At Bor Mutan there were 210 bleached skulls arranged thus.

Between two villages we saw by the roadside a small table raised eight feet from the ground and approached on either side by a broad wooden ramp. We were told that here peace is concluded between the two villages after a war. The chiefs walking up, each from his own side, meet face to face on opposite sides of the table and exchanging "chungas"* of wine, drink to each other, and thus declare peace. On the road to Niao we saw on the ground a curious mud figure of a man in slight relief presenting a gong in the direction of Senua; this was supposed to show that the Niao men were willing to come to terms with Senua, then at war with Niao. Another mode of evincing a desire to turn away the wrath of an approaching enemy, and induce him to open negotiations, is to tie up in his path a couple of goats, sometimes also a gong, with the universal symbol of peace, a palm leaf planted in the ground hard by.

The dead are wrapped in mats and placed on platforms under

* Bamboo mugs.

small roofs, which are decorated with cloths and streamers, and have at each end a tall figure of wood dressed, painted, and tattooed after the manner of the men of the village, and carrying imitation spears and *dâos*; gourds, baskets, &c., being suspended above. At some villages the tombs are enclosed in small sheds with doors and are regular family vaults. These tombs are all just outside the villages. Cairns of stones are also erected, where the heads of departed villagers decorated with shells, beads, and bells are collected, earthen jars filled with the smaller bones being arranged beside the skulls. Each head is decorated so as to preserve its individuality.

In my paper on the Angamis I have said all that we know, or that I, at any rate, know, of the religion of the Nagas. I feel how meagre these papers of mine are, and how much more might be said about the Nagas and their peculiar customs, but I trust that I have said enough to show what a very interesting field of study these hills afford, and what a pleasant life the surveyor's was there, each day's march bringing something new before him, with just enough suspicion of danger to tinge his work with excitement. Personally, I shall never regret the few seasons spent in those hills, and the many pleasant memories they have left to me of work done and dangers shared with men I loved and honoured.

Explanation of Plates XVI to XXII.

Copies of the author's sketches reduced by photography from photozincographs executed at the Surveyor-General's Office, Calcutta.

PLATE XVI.

- Fig. 1. Bachelor's House at Themukedima, Rengmah Nagas.
Fig. 2. Village Drum at Nunkum.

PLATE XVII.

- Fig. 1. Morang, or Bachelor's House, at Nunkum.
Fig. 2. Khulan Mutan, looking south.

PLATE XVIII.

- Fig. 1. Lhota Naga Village.
Fig. 2. Golgotha at Phurima, Lhota Nagas.

PLATE XIX.

- Fig. 1. Hatigoria Naga Man.
Fig. 2. Tail worn by the Rengmah Nagas.
Fig. 3. Vangam of Senua, showing tattooing.

PLATE XX.

Fig. 1. Assiringia Naga Woman.

Fig. 2. A Namsangia Naga, showing tatooing.

PLATE XXI.

Soibang, Vangam of Chopnu (Bor Mutan).

PLATE XXII.

Fig. 1. A Borduaria Naga Man.

Fig. 2. Phemi, Wife of Soibang (Plate XXI).

DISCUSSION.

Colonel H. GODWIN-AUSTEN said that it was very remarkable to note in the Naga Hills the very short distances that have to be traversed, where the language is so changed that these village communities can scarcely understand each other. No doubt the constant state of hostility with their neighbours in which they live leads to this state of things, and the speaker could testify to all that the author had said as to the difficulties caused intentionally by the interpreters whom we have to employ, and who often are the cause of hostile attitude by the exaggerated reports they spread. He remarked that goitre is a disease equally local in the north-west Himalayas as in the Naga Hills, where it is often found in one valley affecting the greater number of the population, while it is quite absent in another valley close by. The patterns of the cloths being distinctive of the different clans, the speaker mentioned that it is still more interesting to state that the devices on their shields are also well known, and by which they distinguish friend from foe at long distances, and are veritable coats of arms. The placing of broken gourds on tombs is no doubt symbolical of death, and they are always placed with the mouth downwards. In the West Khasi Hills, on the tombs of women and girls, the cotton spindle she has wound are hung on the sides broken in half. The Lulus, a small clan in the North Jaintia Hills, place their dead in open coffins, raised several feet above the ground, which are left in this position after the dead body is taken out and burnt close by. The similarity of the pendant piece of wood hung from the waist, as shown in the drawing of the girl of the village of Chopnu to what the speaker had seen on a Bhuddist sculpture in the valley of Kashmir is remarkable. He obtained one at the village of Bijbihara on the Jhelum, which had just been dug out, and which he afterwards gave to the Museum of the Asiatic Society of Bengal in Calcutta.

Mr. HYDE CLARKE, in responding to Col. Godwin-Austen's observations as to the diversity of languages, proposed another explanation. Thus for *monkey* there were four words, for *elephant* three.

That these were not of local origin could be proved by tracing their affinities elsewhere, and then we find the four forms for monkey, *takwi*, *simai*, *veh*, and *suchi*, represented as *tekawn*, *dsima*, *wai*, and *tsakar*; the forms for elephant, *lokniu*, *puok*, and *shiti*, appearing as *ulonga*, *opowo*, and *ndshogo*. So in like way for many other words, as tiger, cow, goat, fish, head, ear, hair, mouth, hand, bone, blood, sun, moon, star, day, night, to-day, to-morrow, no, not, I, we, thou, you, he, they. Indeed, wherever tested, the general results were the same. Not only was this found to be so as to dissimilar roots, but as to dialectic variations for the *ma* and *nak* of *not*, for the *masi* and *nasi* of *cow*. These facts serve to show the position of the Naga languages, and to throw light on the early Naga history. The languages must be those of tribes, forming a league before the occupation of the Naga country, and becoming diversified or distinguished after occupation, not being variants from one original stock. Another result is this, that the languages belong to much higher culture than that now prevailing among the Nagas, and to a very ancient culture. The relation is to the group which included the Akkad, the Khita, and all that the speaker had described as Khitoid. One curious parallel is this way is with the *Eten* or *Eteng* of Peru, a similar isolated population. The languages are not those of populations in the present condition of the Nagas, but of higher populations and apparently of a white race. The Nagas represent sections of populations governed by a former dominant race driven up into the mountains, and there is no reason to assume that the Nagas are descendants of the dominant race, or that they have not been affected by the intermarriage or immigration of the neighbouring races. They transmit in all probability the languages of the races which gave the earliest culture to India, antecedent to the Kolarians and the Dravidians. There is not much difficulty in fixing this, as the ancient river and town, names of India preserved by the classic geographers conform to those found in other parts of Asia and in Europe, occupied by corresponding dominant populations, and which names are consequently anterior to the Aryans. The Naga languages are invaluable for investigations in pre-historic philology and archæology, and in this sense the tables of Colonel Woodthorpe are of more than local importance.

The PRESIDENT, Colonel KEATING, and Professor FLOWER also joined in the discussion.

Colonel WOODTHORPE, replying to the President and Colonel Keating, said that the only terraced fields are those belonging to the Angami Nagas. They were described in the previous paper. There are salt wells in many parts of the hills. The water is simply evaporated in small earthen pans over fires, and the rough salt collected and made up into small cakes enclosed in a case of bamboo leaves.

The following paper was then read by the author :—

On some NAGA SKULLS. By GEORGE D. THANE, *Professor of Anatomy in University College, London.*

THE Naga skulls which I have been able to examine, and a short account of which I propose to lay before the Institute, are five in number. Four of these belong to the Museum of the Royal College of Surgeons; the fifth was brought from the country by Colonel Woodthorpe. Three of the skulls are known to be those of males, the other two, judging from their appearance, are the skulls of females. I will for convenience of description name the skulls A, B, C, D, and E, as follows, and thus refer to them in the course of this communication.

A.—Roy. Coll. Surg. No. 793, from the Barnard Davis Collection: *Thesaurus Craniorum*, p. 173, "773, Naga, ♂, æt. c. 40. Fine skull of a freebooter shot on a plundering expedition. The internasal suture is quite oblique."*

B.—Roy. Coll. Surg., No. 794. From the Barnard Davis Collection: *Thesaurus*, p. 173, "774, Naga, ♂, æt. c. 20." "The calvarium of a servant-lad of Colonel Hanney's, said to have been about 18; but the crowns of the teeth, except *m* 3 on the left side, have been nearly worn away. Has a frontal suture. The nasal bones are as nearly absent as possible, being reduced to two merely perceptible particles, so that the orifice may be said to be formed by the superior maxillaries alone; and the *lamina perpendicularis ossis ethmoidei* descends below the diminutive nasals, and presents itself at the upper part of the fissure." The skull also exhibits some degree of oblique deformity, the right frontal and left parieto-occipital regions being flattened and the opposite regions bulged. There is no synostosis of the sutures. The lower jaw is wanting to this skull, and the zygomatic process of the left temporal bone is broken.

C.—Roy. Coll. Surg., No. 795. From the Barnard Davis Collection: Supplement, p. 28. "Naga," "Lentee" ♂, æt. c. 35. Has a frontal suture. Teeth are deeply stained with betel. He was murdered—it was supposed by his woman. There is an epipteric bone present on each side; that on the left side is particularly large. The lower jaw is wanting.

D.—Roy. Coll. Surg., No. 652a. Skull of a Naga from Ninu, in the Patkoi Mountains; lately presented to the Museum by Mr. F. d'O. Partridge. Apparently the skull of a female.

E.—Skull brought by Colonel Woodthorpe from the same neighbourhood as D. Also appears to be the skull of a female.

* It is further stated here that "The occipital, atlas, and dentata are all ossified together." The base of the skull is, however, quite normal, and there is no appearance of any anchylosis having existed between the occipital and atlas.

The skull E is remarkably decorated, wires being passed through the orbits and zygomatic arches, and supporting on each side highly polished portions of some porcellaneous shell, as well as five small bells below the face. D was adorned in a somewhat similar manner when received, a number of large rings of thick wire being placed through the zygomatic arches, nasal cavities, and orbits. The skulls have evidently been carefully cleaned and these objects placed on afterwards.

The skulls are all from adult, yet still young persons; in all the basilar synchondrosis is ossified, but the large sutures remain open, and show no indications of commencing union. In none of the skulls, moreover, have any of the teeth been lost during life, although those that are present are much worn, except in the case of C, in which the wear is but slight. In A and C the third molars of the upper jaw have not been developed, while in D there is absence of the third lower molar of the left side.

In their general features the skulls exhibit a great similarity; but to this statement A and C offer a striking exception in some of the most important characters of the face, as will appear in the course of the description. D and E are remarkably alike in all respects, as may be seen from the table of measurements.

The skulls are of moderate size, the average of the three males being 1377 c.c., and of the two females 1238 c.c. They thus belong, allowing for a difference of 10 per cent between the males and females, to the mesocephalic group of Professor Flower. The crania are smooth and rounded; the lines and muscular impressions on the occipital bone, and the temporal lines are but feebly marked; the mastoid processes are small; theinion very small or obsolete, in the males not exceeding No. 1 of the French "Instructions"; and the glabellar prominence and brow-ridges are reduced to a minimum. The degree of complication of the sutures about equals No. 4 of the "Instructions," and Wormian bones are scanty.

The average index of breadth is 78.1, the highest is in A, 80.2, the lowest is in C, 75. They are, therefore, as a group mesaticephalic. The index of height is nearly the same, but whereas in four the height decidedly exceeds the breadth, in B it is so much less that it brings the average height-index down to 78.4. The maximum transverse diameter is in all cases interparietal. The parietal eminences are well developed, and the forehead being narrow the cranium viewed from above has a markedly ovoidal figure, except in B, where the form is more oval. It is interesting to note that, of the two metopic skulls, B is especially characterized by a great breadth of forehead, while C has the narrowest forehead of the whole series.

In the lateral view the vault of the cranium is well arched,

forming a continuous and fairly regular curve from the nasion to the opisthion; the forehead in this view rises boldly, and is in the female especially upright, in the male it is a little more sloping, but cannot be said to be in any degree receding. In the occipital view there is a slight elevation along the line of the sagittal suture, with a little flattening on each side between this and the parietal eminences, thus causing an approach to the pentagonal conformation.

The face is of considerable length. The facial line is but little inclined, the degree of projection of the maxillæ, estimated by the method of Professor Flower, *i.e.*, the comparison of the basio-alveolar line with the basio-nasal line = 100, is expressed by the average gnathic index of 98.6: they are consequently mesognathous with a tendency to orthognathism. The orbits are rounded, the upper margin is sharp and but little prominent. The orbital index shows, however, a striking difference in form between the skulls A and C and the others; for while the index of B (male) is 83.3, and is thus microseme; and that of D and E (female) are somewhat higher, 86.8 and 86.5 (this index is usually a little higher in the female than in the male), in A it is 91.9, and in C it reaches the height of 94.1, and is therefore decidedly megaseme. In the form and proportions of the nose a similar peculiarity is presented by these skulls. In B, as above mentioned, the nasal bones are practically absent, and the upper part of the nose is formed by the expanded nasal processes of the superior maxillary bones; in D and E the nasal bones are of moderate size, and in all three the bridge of the nose is flattened, projecting forwards very little beyond the inner margins of the orbits, but at the same time not being depressed below the level of the glabella. In A, however, the nasal bones, although narrow, are as prominent as in an ordinary European skull.* So also the nasal index in B is 59.5, in D 57.4, and in E 56.5, giving an average of 57.8, that is, they are strongly platyrrhine, while A has a nasal index of 46 and C of 47.2, so that both are leptorrhine. In all the nasal spine is but little developed, 0 or 1 of the "Instructions."

Situated as these people are, on the confines of the great Mongolian territory, the condition of the malar bones must be a point of great interest. It is well known that the forward projection of the malar bones (to be measured by the naso-malar angle of Professor Flower), is very great in Mongolian races, and in this particular all our skulls are in accord. The average naso-malar angle is 144, and the highest two are A, 147, and C, 150, the skulls characterised by the high orbits and narrow nose. The malar bones are also large in proportion to the skulls, and the

* In C the nasal bones are broken.

zygomatic arches are prominent. They are phænozygous with the exception of B, with its metopic suture and broad forehead.

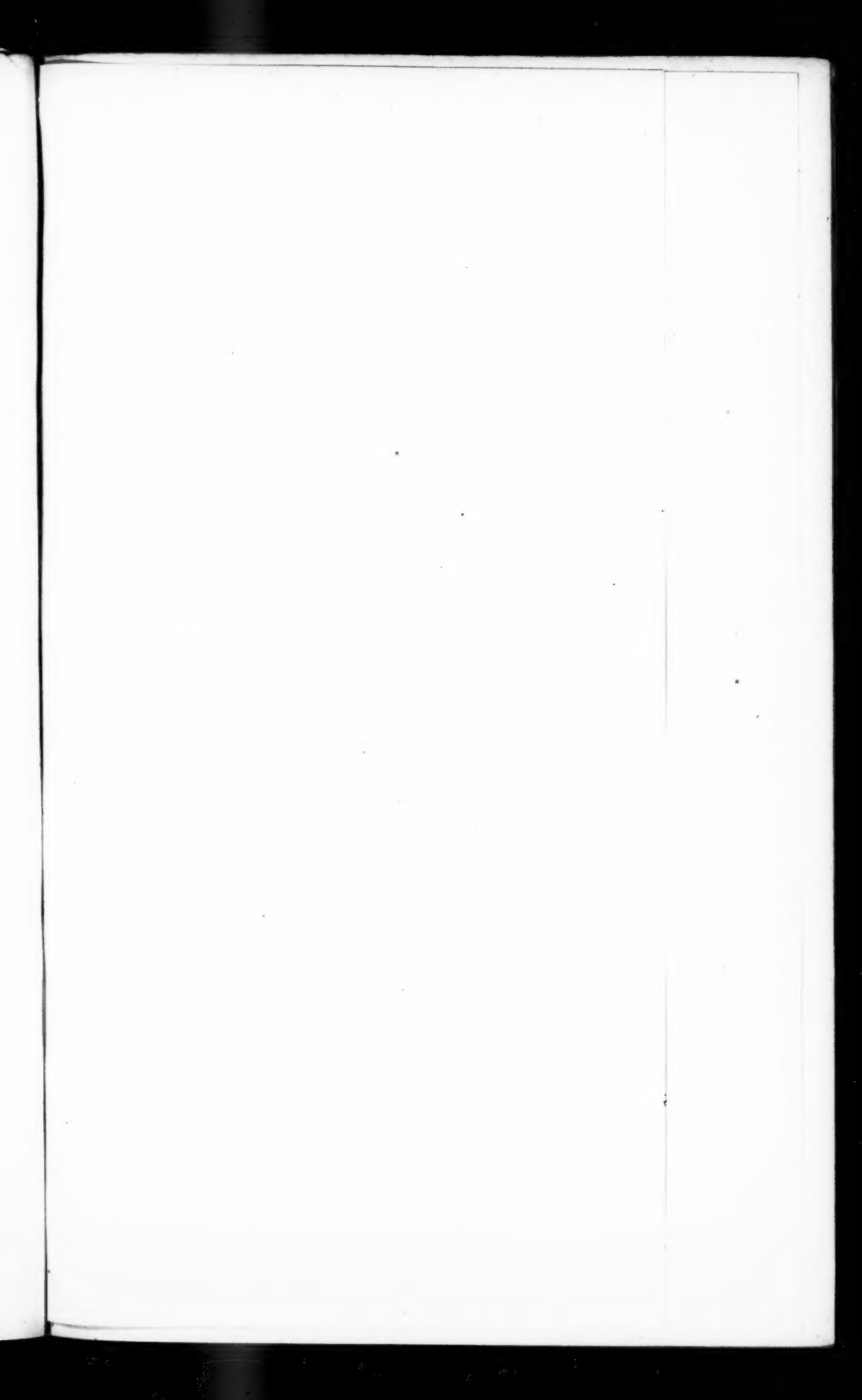
In another character, namely, the form of the palate and dental arch, these skulls agree, and present a noteworthy conformation. The palate is exceedingly broad, the dental arch is widely and regularly curved, *parabolic* in form.

Professor Flower has recently* proposed an improved method of expressing these relations, by means of the palato-maxillary index, and he has given the following examples: Tasmanian, 106; Australian, 107; English, 117; Eskimo, 124. I have examined with this object the maxillæ of 16 Chinese skulls, and have obtained an average index of 123. The five Naga skulls yield an average palato-maxillary index of 125, but while all have broad palates this very high average results from the extreme breadth in B, where the index is 134.

The skulls are too few to allow of any very certain conclusions being drawn as to the cranial characters of the Naga people, but the foregoing observations have been sufficient to demonstrate the close affinity of these skulls to the Mongolian type. The smoothness of the cranium, the flatness of the forehead and face, the slight development of the mastoid processes and of the muscular prominences and impressions, the moderate gnathism, the projection of the malar bones and consequent open naso-malar angle are all Mongolian characters, as would appear to be also the high palato-maxillary index. In order to show this more clearly I have placed side by side, in tabular order, the capacities and principal indices of these skulls, and of 18 Chinese skulls in the College of Surgeons' Museum, (*see* Catalogue, Part I, pp. 114-118), premising that the Chinese skulls are generally of a more robust development, and have the prominences and impressions more marked than is the case in the Naga skulls.

	Chinese.	Nagas.
Capacity (Males)	1424	1377
Breadth-index	78·8	78·1
Height „	75·2	78·4
Gnathic „	99·0	98·6
Orbital „	89·9	88·5
Nasal „	49·8	53·3
Palato-maxillary index	123	125
Naso-malar angle	143	144

* "On the Cranial Characters of the Natives of the Fiji Islands," *see* Anthro. Journal, November, 1880. Professor Flower then used the name *maxillary index*. *Palatomaxillary index* has since been proposed by Professor Turner, as indicating more precisely the nature of the index.



MEASUREMENTS

[illegible][illegible]

[illegible][illegible]

This table also brings to light some points of difference between the two groups in the index of height, in the orbital index, and especially in the nasal index. In reference to the last feature, however, it may be remarked that there is a considerable range of variation within the series of Chinese skulls, and while the tendency undoubtedly is towards the narrow form of nose, and there are some which agree closely with our skull A, both in the nasal index and in the prominence of the nasal bones, there are, among the eighteen, four which are to a greater or less extent platyrrhine; and of these, one, No. 691 may be particularly mentioned, since it has a nasal index of 58·7, thus equalling our little group of B, D, and E (the skull shows altogether a great resemblance to D and E), and this is associated with an extremely low orbital index, viz., 75.

Thus a platyrrhine form of skull with a microseme orbital index is not unknown, at least in individual cases, in an undoubtedly Mongolian family, but the question whether this is the prevailing condition amongst the inhabitants of the Naga Hills must remain to be settled by further observations.

The measurements in the appended table have been made in the manner recommended by Professor Flower, to whose kind assistance I am mainly indebted for the opportunity of making this communication. A full explanation of the terms and methods employed, in so far as they differ from the French "Instructions," is contained in Professor Flower's memoir already cited, "On the Cranial Characters of the Natives of the Fiji Islands."

THE SPREAD *of the* SLAVES.—PART IV.

THE BULGARIANS.

BY H. H. HOWORTH, Esq., F.S.A., M.A.I.

THE term Bulgaria has a twofold connotation which it is very necessary that we should keep constantly in view. There is a political Bulgaria, and an ethnographical Bulgaria. These two are essentially different in boundaries and otherwise. The former includes all the country which was subject to the Bulgarian Crown in the days of its greatest prosperity, the latter includes the area peopled by Bulgarians properly so called. The boundaries which separate them are not always easy to fix, for we must remember that, although the Bulgarians are a mixed race of Slaves and Turco-Ugrians, yet that in their language and other more readily discriminated characteristics they have

retained but few traces of the latter element in their composition, which has been absorbed by their former one. So that superficially the Slaves of Macedonia or Rumelia and the Bulgarians of Bulgaria proper north of the Balkans are now very nearly related indeed. So nearly related, that if the question of nationality is to govern the solution of political problems, it seems pedantic to separate them when we are treating the problem, not as one of ethnology, but as one of politics.

This, however, is complicated by another difficulty. It is comparatively easy to draw a line which shall separate the Slaves of Macedonia and Thrace from the litoral population which, whatever its mixed origin, is chiefly Greek or Turkish in language. It is similarly not difficult to define the corresponding boundary between the Macedonian Slaves and the Albanians. North of the Balkans, the problem is a more difficult one. If we accept the position, that whatever was subject to the Bulgarian Crown in the days of the Tzar Simeon, is to be included within the limits of Bulgaria, we must detach from Servia a very considerable area, and carry our boundary at least as far west as the Ibar and the Morava, and not merely to the Timok as is generally supposed. But letting this pass as one of the difficulties which prevent the recreation of the Bulgaria of Michael Boris and of Simeon in its integrity, and which has to be solved by a compromise involving a sacrifice on the part of Bulgaria, it will not be unprofitable to try and define the limits of this political Bulgaria towards the west and south. Accepting the test of language, and the postulate that pretty nearly all Slaves south of the Balkans were (as I believe they were) subject to the Tzar Simeon, we may accept the boundary line as fixed by the treaty of Saint Stephano as giving a very fair representation of the facts. This line no doubt errs on the side of including too little, for there can be very little doubt that, as we shall show in the next paper, even in Thessaly in the centuries preceding the 12th, there was a large element of Slavic origin, which has been absorbed by the more civilised Greeks. This boundary, however, represents very fairly the limits of what we may style Political Bulgaria. It has been admirably drawn in map 11a of Petermann's "*Mittheilungen*" for 1878. By Article 6 of the treaty of St. Stephano, the boundaries of the proposed Bulgaria, commencing with the north-eastern corner of the rectified frontier of Servia followed the eastern boundary of the Kaza Wrania district as far as the range of Karatagh, then bending south-westwards, ran along the eastern boundary of the Kazas of Kumanovo, Kotshani, and Kalkandelen as far as the mountain Korab, and thence along

the river Weleshchitza until its junction with the Black Drin. Then turning southwards following the Drin, and along the western verge of the Kaza Okhrid towards Mount Linas, then following the western limits of the Kazas of Gortcha and Starovo, as far as the mountain Grammos. Thence it passed by the Lake of Kastoria. The frontier then joined the river Moglenitza, and following its course south of Yanitsa to its outfall into the Ægean, past the mouth of the river Wardar to Galliko, past the villages of Parga and Saraikoi. Thence through the centre of the lake Beshikgol, and on again to the sea, thus cutting off the peninsula of Salonica, then along the coast past the mouths of the Struma and the Karasu as far as Burugol. Then turning to the north-west to the mountain Chaltepe, crossing the range of Rhodope to the mountain Krushovo, past the Kara Balkan, the peaks Eshek-Kulatshi, Chepeliiu, Karakolas, and Ishiklar to the river Artá. Thence past the town of Chirmen, leaving Adrianople on the south, past the villages of Sugutliu, Karahamza, Arnautkoi, Akardshhi and Yenidshe to the river Tekederessi, following the course of the Tekederessi and the Chorluderessi as far as Luleburgas and thence past the river Sudshakdere to the village of Sergen, whence the line went in a straight line to Hakim-tabiassi where it reached the Euxine.

Such was the boundary of Bulgaria towards Turkey, as fixed by the treaty of St. Stephano. East and north of this limit, with the exception of some sporadic colonies of Vlaks and gipseys, and of a certain partial element of Turkish and Circassian blood, the population is tolerably homogeneous in language, religion, and manners. I say tolerably homogeneous, meaning sufficiently so to satisfy political exigencies.

Ethnologically the population here referred to is not so homogeneous. As is well known, European Turkey was during the sixth century overrun by various Slavic tribes who settled there in great numbers, and extended their colonisation, in fact, as far as the Morea. This migration of Slaves will occupy us in the next paper of this series. Suffice it to say here that its result was that Mœsia and Thrace became virtually Slave countries, as they so largely are still.

This earlier migration, as I shall show in the next paper, took place chiefly under the leadership of Huns and Avars. It was when Mœsia was in this way settled by Slaves, and while the empire (especially its possessions on the Adriatic), was being devastated by the Avars that the Emperor Heraclius invited a body of Slaves led by Bulgarians, who were called Khrobati (*vide infra.*), to attack the latter, and allowed them to settle in Croatia. Shortly after, the Sabiri, another Hunnic race closely allied to the Bulgars, also settled south of the Danube under the auspices of

the Emperor, and as I believe secured all the country south-east of the Croats, and as far as the Euxine, so that the districts north of the Balkans became virtually divided between the Croats in the west and the Sabiri or Serbians in the east. This was about the years 630-640. About forty years later the Bulgarian Huns, driven forward by the Khazars, migrated in large numbers across the Danube, conquered the greater portion of the area already subject to the Sabiri, pushed the dominions of the latter back beyond the Morava, and founded the community which is now known as Bulgaria. The invaders were a caste of conquerors and became the proprietors of the land and the rulers of the new community, while the peasantry remained Slavic. This we shall show presently. The Bulgaria thus originally constituted was bounded on the east by the Euxine, on the south by the Balkans, and on the west by the Morava, and this may be described as ethnographic Bulgaria.

It was by no means homogeneous, as we shall show. The Bulgarian element proper, *i.e.*, the Hunnic element, prevailed chiefly in the Dobruja, and became weaker towards the Balkans and the Morava. It is with this settlement of the Bulgarians south of the Danube that our story properly begins. The various *raids* of Huns, Avars, and also of Bulgars south of the Danube, which took place before this settlement, and were for the most part merely temporary, we shall describe in a future paper.

When about the years 457-461 the Avars first appear in the Byzantine historians, we find them described as having driven forward the Saraguri, Urogi and Unnugari, and as having expelled the Sabiri from their former quarters. These tribes then settled in various parts of the old Hunnic land from the Carpathians to the Caucasus, the Sabiri chiefly settling north of the latter mountains. A hundred years later the Sarselt, the Unnugari, and Sabiri were again attacked by the Avars, who were then being pushed forward by the Turks, and who now migrated westwards as far as Pannonia, taking with them no doubt large contingents of these tribes, and thenceforward for many years it would seem that the Avars dominated over not only Pannonia, but also over the various Hunnic tribes of southern Russia, including the Sabiri and the Unnugari.

In a paper of the series on the westerly drifting of Nomades, I have already discussed the nationality of the Bulgars, and shown that they belonged to the Hunnic race, and were, in fact, Huns under another name. Since writing that paper I have met with some fresh information which enables me to specify more definitely the actual affinities of the race. I suggested in

the former memoir, that the Cheremisses are *probably* the descendants of the Bulgars, who founded the famous state of Great Bulgaria on the Middle Volga. This view I must now modify. In looking over the pages of Nestor, the Russian annalist, I find that he speaks of the Cheremisses and of the Bulgarians as separate peoples living at the same time. The Prince of the Cheremisses, in fact, assisting the Russians in their attack on Bulgaria (Nestor sub. ann. 1184, Ed. Paris, ii, 150).

Putting aside the Cheremisses, the only race on the Volga which has claims to represent the ancient Bulgars is that of the Chuvashes, and the latest Russian researches, especially those of M. Kunik, in his notes to Al Bekhri, make it very nearly certain that the Chuvashes in fact descend from the ancient Bulgars. The Chuvashes now speak a corrupt Turkish dialect, but all inquirers who have examined the question of their ethnology closely are agreed that this Turkish element is comparatively of recent origin, due probably to their having been so long in close contact with, and subject to, the Tartars. In physique, in manners, and customs, and in other respects the Chuvashes are Ugrians, and traces of their Ugrian origin survive, in fact, in their language. They represent, as I believe, most purely, except in their present Turkish speech, the Huns and Bulgars of the fifth and sixth century.

Let us now turn to our immediate subject; we have seen how the various Hunnic tribes were conquered by the Avars in the middle of the sixth century. It would seem that, although the Avars exercised a certain suzerainty over them, they preserved a separate organisation, and even claimed to elect a supreme Khan sometimes, and we read in the pages of the Frank chronicler Fredegar how, in the year 630, there arose a great commotion in Pannonia about the election of a king as to whether he should be an Avar or a Bulgarian. The rival parties fought together, and the Bulgarians were beaten, and 9,000 of them who had been expelled from Pannonia with their wives and children, went to Dagobert, the Frank king, and asked him to grant them a settlement within the Frank borders. Dagobert ordered winter quarters to be assigned them in Bavaria, which was accordingly done. When they were scattered about in quarters in this way, Dagobert, by the advice of the Franks, ordered the Bavarians that they should set upon and kill their guests; they accordingly did so, and none of the Bulgarians escaped, except Alticeus, or Alticcus, who with 700 men, women, and children, escaped to the March of the Winidi or Wends. He lived with Walluk, the chief of the Wends, for many years (Fredegar, c. 72; Zeuss, 716, 717). It is very probable, as Zeuss suggested, that this Alticeus is the Alzec, chief of the

Bulgarians mentioned by Paulus Diaconus, who tells us that a Bulgarian chief named Alzec, for some unknown cause, left his people, and went to Italy with all his army, to King Grimoald, promising to serve him and to settle in his country. He directed him to go to his son, Romoald, at Beneventum, whom he ordered to find him a place to settle in. Romoald gladly received him, and gave him the districts of Sepianum, Bovianum, and Iserniam, in the mountains east of Naples (which at that time were unoccupied), with other lands. Paul adds that although in his day these colonists spoke Latin, yet they had not forgotten their mother tongue (P. D., v. 29; Zeuss, 717). Grimoald reigned from 661 till 670.

Let us revert again to the statement of Fredegar. I have very little doubt that the outbreak he mentions is the same described by Nicephorus, who in his notice of the reign of Heraclius, tells us that Kubrat, the cousin of Organa (? Urkhan) the ruler of the Hunnogunduri, rebelled against the Khakan of the Avars, drove out the people whom he had received from him, and afterwards sent an embassy to make peace with Heraclius, which lasted during their joint lives. Heraclius made him presents and gave him the title of Patrician (Stritter, ii, 501).

The explanation of the apparent contradiction between Fredegar and Nicephorus I take to be this. When Kubrat rebelled against the Avars, he became the ruler of the various hordes of Huns proper, extending from Pannonia to the Don, including possibly Transylvania and Wallachia, but the Avars succeeded in ejecting his supporters from Pannonia, which together with Illyria and the land west of the Morava, thenceforward became the Avar country proper.

It was a frequent custom with the Hunnic hordes to take their names from some noted leader, and it is therefore exceedingly probable that on their great outbreak the followers of Kubrat should have called themselves Kubrati, that is, Croats. I have argued in a previous paper of this series that the Croats or Khrobati of Croatia were so called from a leader named Kubrat or Khrubat. I would add here an addition to what I have there said, viz., that the native name of the Croats, given variously as Hr-wati, Horwati, cannot surely be a derivative of Khrebet, a mountain chain, as often urged, but is clearly the same as the well known man's name Horvath, familiar to the readers of Hungarian history and no doubt the equivalent of the Khrubat or Kubrat of the Byzantine writers, which name is given by them not only to the stem father of the Bulgarian kings, but to one of the five brothers who led the Croat migration.

I have also shown in previous papers of this series, that the

Croats were led by a caste of Hunnic race. These facts are very curious, and make it *à priori* not improbable that they may have taken their names from Kubrat, the leader of the Bulgarian revolt himself, and were in fact his subjects. Now on turning to the first time that we find mention of the Croats, which unfortunately is contained in the writings of Constantine Porphyrogenitus, who wrote in the tenth century, and therefore three centuries after the event, we read that Heraclius, being much distressed by the way in which the Avars were devastating Dalmatia, made overtures to some princes of the Krobati, offering them if they drove out the Avars from that district to allow them to settle there. They accordingly marched under five brothers, one of whom was called *Kubrat*, conquered the Avars in Illyria, and occupied the country. These Khrobati can surely be no others than the subjects of Kubrat the Patrician. It is exceedingly probable that at this time Moesia was practically lost to the empire. We must remember that Kubrat, who doubtless dominated over Wallachia and its borders, was at deadly issue with the Avars, as we have seen, but was, on the other hand, on friendly terms with Heraclius. The latter would, therefore, naturally appeal to him for help, and there does not seem to be another solution available, for we must remember that the Avars were then masters of Pannonia. I showed in the last paper the great improbability that the Croats, who were in alliance with Heraclius, should have gone to him from the Carpathians. They were doubtless close neighbours of the empire when invited to attack the Avars, and in order to succeed against such a powerful race as the latter, must have been a strong nation, and not a mere handful of people fleeing from the Carpathians, nor does the narrative of the Byzantine author in fact demand this. He merely says the Croats who settled in Croatia came from the same stock, *i.e.*, belonged to the same race as the Croats of White Croatia.

The view here urged is confirmed in other ways; the five brothers who led the Croats seem to answer to the five sons of Kubrat, to whom we shall refer presently. Again, when the latter divided their father's heritage, one of them is said to have settled with his people in Pannonia. This exactly accords with the tradition about the Croats, which tells us that when they had occupied Dalmatia, one section of them separated from the rest, and moved into Pannonia. This section founded a separate principality there which I described in the paper on the Croats.

Let us now prosecute this clue somewhat further. We have seen how in all directions where we have traced them, the southern Slaves were led by a caste of Hunnic race. The case of the Serbs

I treated as somewhat doubtful, when writing about them, but I am now convinced that they formed no exception at all, and were as much as the other south-western Slaves led by Hunnic leaders. The name Serb has been a *crux* to every inquirer into Slavic ethnography. It occurs in the form Serbi, Sorabi, Severi, &c. Now it is very strange that one of the three main divisions of the Huns, as we have seen was called Sabiri, and these Sabiri occur frequently in the history of the beginning of the seventh century. Like the other Huns they were conquered by the Avars in the year 558, and afterwards by the Bulgars. What is more interesting is to find the Sabiri named as the allies of Heraclius in his wars with the Persians. It is not strange, therefore, they should have turned to him again at the time of the great upheaval in the Avarian empire, which we have mentioned, and thus it came about that shortly after the Croats had expelled the Avars from Dalmatia, the Sabiri or Serbs also went and asked Heraclius for quarters. He settled them eventually, as I have shown, in Mœsia, to the east of the Croats. As I now believe, their original settlement probably included the greater part of Bulgaria, as well as Serbia proper, and when the Bulgars finally settled south of the Danube in 678, we are expressly told that they subdued the Seberei or Seberenses, who occupied the country from the Balkan Pass, (called that of the Beregabi), eastward as far as the marshes, *i.e.*, the marshes of the Dobruja, and westward and southward as far as Avaria (Stritter, ii, 508, 509). It is curious that Schafarik, who actually identifies these Seberenses with the Hunnic Sabiri (*op. cit.* i, 332), does not seem to have seen that they were most probably of precisely the same stock as the leaders of the Serbians who founded the Servian state. We find another colony of them north of the Danube, called Severani, who occupied a district then known as the Severinian Banat, situated in the south-western corner of Wallachia. These Severanians, Schafarik, for some unknown reason, says must be clearly distinguished from the Hunnic Seberenses mentioned by Theophanes in 678 (*op. cit.* ii, 204). I confess I know of no reason why.

Having conquered the Seberenses the Bulgarians apparently held them in a more or less subordinate position, and we find a husbandman or hind still called Sabira or Sebr by the Bulgarians. The word has passed from them apparently to the neighbouring Slaves. In the law book of the Serbians, dating as far back as the reign of Stephen Dushan, in 1349, we find a rustic or peasant styled Sebr, and the same class is still called Sebar, Sibor, Cipor, &c., in Serbia and Dalmatia (Schafarik, i, 332). To sum up, therefore, the results of our reasoning, we hold that when the civil strife took place in Pannonia in the beginning of

ths seventh century, when the Avars asserted their supremacy, the other Huns were driven out. One section, as we have seen, took refuge with Dagobert; another, the White Croats, in Lusatia; a third, consisting of the Sabiri, and the associated tribes of the Obodriti, &c., followed the Elbe, and settled in Sorabia, &c., as far as the North Sea, in the way we explained in previous papers. Meanwhile, other sections of the race retired elsewhere; the Bulgarians re-asserted themselves in the steppes of Besserabia, and also planted themselves under the name of Croats in Dalmatia; while the Sabiri occupied Central and Eastern Mœsia. In all these cases save that of the Bulgarians proper the tribes who were scattered were Slaves while their leaders only were of Hunnic blood. Let us now revert once more to Kubrat.

There is a notice of a Hun under the name of Kuber which, although obscure, is very interesting. This is contained in the account of the miracles of St. Demetrius by an anonymous author contained in the 4th volume for October of the "*Acta Sanctorum*," and of which the date is uncertain. This notice, perhaps on account of its difficulty, has been passed over by Schafarik, Jiresek, and others. It reports that about the middle of the seventh century, the Slaves having made an attack on the empire and been beaten, appealed for aid to the Khakan of the Avars, offering him rich presents and also to make over to him certain districts among themselves where his people might settle. This invitation the Khakan responded to with alacrity and set out with the various barbarous nations subject to him, together with all the Slaves and Bulgarians, and marched towards Thessalonica where several miracles were performed much to the terror of the invaders, who withdrew (*op. cit.* 166-170). The Avars had wasted a great part of Thrace, &c., and repaired to Sirmium on the Danube with their booty and prisoners. There we are told the Avars, Bulgars, and other races mixed together and interbred with their captives and increased very largely in numbers, adopting Roman manners. We are further told the Avar Khakan set over the new nation thus created a chief named Kuber, who apparently had his capital at Sirmium. Presently, says the chronicler, like the Israelites in Egypt, the subjects of the latter began to be rebellious against the Avar Khakan. Thereupon the latter attacked them, but having been beaten in several fights he withdrew northwards, whereupon Kuber with his people crossed the Danube, within the Roman borders, and settled down in the plain of Karamesios, and many of his people who were Christians, and who as above reported had been carried off as captives, left Kuber and returned once more to their homes in various parts of

Thrace (*id.* 179, 180). This was naturally very distasteful to Kuber and his followers, who thus saw their power gradually becoming dissipated. The migration continued, however, and Kuber and his chiefs thereupon determined upon a plot. They chose the one among them who was shrewdest and could speak Greek and Latin, *Slave and Bulgarian*, who was instructed to go to Thessalonica and make his submission; then to get a party round him, create a strife in the city and capture it, so that Kuber and his people might settle there and thence harry the neighbouring nations, the islands, and the mainland of Greece. The worthy thus chosen was named Maurus, who was of Roman origin. The Emperor received his submission graciously, and presented him with the Consular insignia. He also obtained that the fugitives who had withdrawn their allegiance from Kuber, and who he professed belonged to him, were made over to him, and he was made their chief. Many who knew his antecedents did not hide their discontent, whereupon he decapitated those whom he suspected, and sold their wives and children into slavery. He duly appointed centurions and other commanders, and soon had secured a body of people ready to do his bidding who commenced making broils inside the city, and also caused several fires. The opportune arrival of a considerable force, and the treachery of the son of Maurus, who disclosed the plot which his father and Kuber had made to the Emperor, prevented the hatching of any further mischief. Maurus was deprived of his command, but given a minor office near the city (*id.* 184). Of Kuber we read nothing more in this curious work, and it would seem that he withdrew northwards. Such is the notice which evidently as the editors of the "*Acta Sanctorum*" argue most forcibly, doubtless refers to Kubrat and his dealings with the Empire, and it points to his having been well known south of the Danube. We will now pass on again.

The history of the beginning of the Bulgarian royal house is contained in two documents: one a native saga which was apparently originally written in Greek letters, and afterwards translated into Slavic, and which occurs in an early Slave MS. This document professes to give a list of Bulgarian chiefs from the earliest time to the year 765. It is written for the most part in Slavic, but has a number of barbarous words intercalated which have been with good reason appropriated to the Ugrian or proper Bulgarians. The list begins with two princes who are both assigned patriarchal ages, and are both said to have belonged to the family of Dulo. The name I would suggest is a corruption of Attila, and the Duloids answer to the Attilides mentioned by Jornandes. The first named of the house is Avitokhol, said to have reigned 300 years. He is assuredly no other than

Attila himself. Then follows a usurper Irnik, who is said to have reigned for 150 years, who is in my view the Irnik or Hernakh, son of Attila, who is expressly said to have settled in the Lesser Scythia, *i.e.*, the Dobruja. (Jornandes de Reb. Get. 5.) After Irnik there follows a usurper named Gostun, whose name is Slavic, who belonged to family Yermi, and whose reign lasted two years.

This surely points to a break in the continuity of Hunnic history which we knew took place on the disappearance of Hernakh and his brothers. Gostun was followed by two Duloids, Kurt, who reigned 60 years—and who has been identified, I think improbably, with the Kubrat of the Byzantine authors by Jiresek—and Besmer, who reigned three, under whom we are told the Bulgars settled on the Danube. Then followed Isperikh (Jiresek, 127, note). This story is valuable not merely for preserving an independent list of names, but also as making it probable that in the native legends the royal house of Bulgaria belonged to the family of Attila.

The other tradition which in my view is of hardly any value is preserved by the chorographer Theophanes. He tells us that Khrobat, the king of the Bulgarians, left five sons, and bade them cling together against their enemies and not move far from their country. On his death they divided the kingdom among them, the eldest Batbaia or Batbaian (Nicephorus calls him Basian), careful of his father's mandate, "occupies his paternal hearth even to this day." The second, Kotragus, having crossed the Tanais or Don, settled opposite the country of his brother. The fourth and fifth having recrossed the Danube, the former went to Avarian Pannonia and became subject to the Khakan of the Avars. The other one, however, went to Ravenna, and became subject to the Christians. The third brother, called Asparukh, having crossed the Dnieper and the Dniester, settled on a river called Onklos. (Stritter, ii, 504, 505.) Jiresek has remarked that this passage upon which nearly all the subsequent accounts of the foundation of the Bulgarian polity have been based is vitiated by a patent anachronism, since it makes the Bulgars first reach the Danube in the seventh century, whereas we know (as we shall amply show in the next paper) that they had been there long before; but this, in my view, is a very small objection to what is in fact a mere congeries of incongruous traditions.

The eldest son Batbaian, we are told, ruled his father's old country "to this day." That is Theophanes, who wrote late in the eighth century, makes himself a contemporary of a son of Kubrat who was certainly an active leader in 630. Great Bulgarians no doubt existed on the Volga in the time of Theophanes,

and he had no doubt heard of it, but its king who was living in his time could not have been the son of Kubrat. Again, the reference to Kotrag, who lived near his brother, is doubtless founded on a confusion with Kotrag, the founder of the horde of the Kotraguri who did live west of the Don, but had lived there long before this date. Again, the fourth and fifth sons are said to have recrossed the Danube, one into Pannonia, where he settled, while the other went to Italy. The recrossing of the Danube into Pannonia could only be effected from south to north, and involves the position that the Bulgars were already south of the Danube. This clause can only refer to the section of the Khrobati or Croats who did cross the Danube and settle in Pannonia, and were the only Bulgarians known to me who did so, but this was soon after Kubrat's own outbreak, and long before his death. The section which went to Italy under a fourth son is assuredly no other than the band of the Bulgarians which migrated thither under Alzek, but he again could hardly have been a son of Kubrat. At every stage, therefore, the story of Theophanes breaks to pieces. The knowledge he had of these northern parts may be gauged from the fact that he makes the Tanais or Don, which he brings from the Caucasus, a tributary of the Atal or Volga, and makes these two rivers give birth to the Kuphis or Kuban, in which the Xystus, a Bulgarian fish, was caught, and where he says Old (*i.e.*, Great) Bulgaria and the region of the Kotrragi who were tributaries of the Bulgarians were.

When Kurt died we know not, and from the genealogical table above quoted he was doubtless succeeded by Besmer who was in turn succeeded by Ispcrikh or Asparukh, a name of apparently Persian origin. He is mentioned both in the native list and by Theophanes, who assigns to him the crossing of the Danube, when the Bulgars finally settled in Mœsia. This migration was, I believe, induced by the invasion of the Khazars, as suggested by Theophanes himself. This invasion apparently first took place during the reign of Constantine the Second (642-668), and during the next few years the Khazars apparently subdued the various Hunnic tribes of Southern Russia, and I believe their campaigns caused the migration of Ispcrikh and his people to the south of the Danube.

It was under Asparukh or Ispcrikh, as the famous gloss calls him, that the Bulgarians first settled south of the Danube. His people had previously lived in the district north of that river called Oglos by Nicephorus, which, as Schafarik pointed out, answers to the old Slave Agl or Ongl, Polish Wegiel or Wengiel, Latin Angulus, and doubtless referred to the corner enclosed by the Black Sea, the Danube, and the Pruth known as

Budzak, *i.e.*, corner (Schafarik, ii, 163, note 2; Jiresek Gesch. von Bulgaren, 129). Theophanes calls it Onclus, and says it was a river. Thence they made raids across the Danube, and about the year 678 the Emperor Constantine Pogonatos collected a large force from the different parts of Thrace and prepared a naval and military expedition to punish them. He sent his ships to the mouths of the Danube, while his soldiers made their way to Oglos. The Bulgarians, afraid of his preparations, retired to their fortresses, where the Imperial troops dared not assail them on account of the neighbouring marshes. The Emperor was meanwhile attacked with gout and left with his family on five fast ships to go to the baths of Mesembria, ordering his generals to try and bring on an engagement or to keep the enemy blockaded till his return. The soldiers fancied that he had fled, nor could the officers, who presented the points of their swords, restrain them, and after a short delay they began to retire. They were attacked in their retreat by the Bulgarians and apparently lost many men. The Bulgarians then crossed the river and advanced as far as Varna and subdued the country between the Black Sea and the river (that is the district of the Dobruja) and subdued the seven tribes of Slavini who lived there. They also made tributary the Seberenses, who lived between the marshes of the Dobruja and the Balkan pass of Beregaba and westward, and the seven tribes who lived towards the south and west as far as Avaria, *i.e.*, the country which had been subdued by the Avars (Stritter, ii, 508, 509), that is probably westward as far as the Serbian Morava and Belgrade (Schafarik, ii, 164, 165), and of which we have made mention in the former paper on the Serbians. The Dobruja and the watershed of Kamsiya, or Kamchek, as Jiresek says, were till the tenth century the focus and kernel of the Bulgarian kingdom. Preslaf, on the Great Kamsiya, was the capital, and Drster (the modern Silistria) the fortress of the kingdom. It is strange that it is in this very district that to this day the Turks and Tartars have their principal seats. All the expeditions of the Byzantine troops against the Bulgarians in the eighth and ninth centuries were not westwards by way of Philippopolis towards Sophia or Tirnova, but in the direction of the mouths of the Danube and the district of Varna (*op. cit.* 131). It is a curious fate, therefore, which has overtaken the Dobruja that it should have been detached from Bulgaria and joined to Roumania in the new arrangement of the European map. We must remember, however, that this area was one in which many race revolutions took place afterwards, and that Tartars and Turks now form its main population. But to revert to the Bulgarians proper. They were clearly only a conquering

caste of foreigners supplying the upper ranks of the social structure and giving their name to the country while the great bulk of the population remained what it had been before, Slavic. It was a case, as has been pointed out, similar to the settlement of the Franks in Gaul, of the Norsemen in Normandy, the Lombards in Lombardy, and the Romans, or Romaioi, in the old land of the Hellenes. In all cases it was a conquering and superior caste coming in and changing the name and invigorating the blood of a race previously occupying the land. Sigebert who copied the so-called "*Historia Miscella*," which was probably composed by Paulus Diaconus, dates the defeat of Constantine in the year 680 and calls the Bulgarian king Bathaia (Pertz, vi, 326). Thenceforward Mœsia was lost to the Byzantine empire, and its fair towns and fields became the prey of the Nomades from the east. The Emperor Constantine Pogonatos agreed to pay them tribute or black mail under the guise of an annual pension, in order to protect his frontiers from attack, and Thrace south of the Balkans was reorganized as a *thema* and was placed under the jurisdiction of a *prætor* (Stritter, ii, 509). Well might the chronicler bewail that the former mistress of the east and west should be constrained to pay tribute to this unclean race.

Constantine's son Justinian the Second, Rhinotmetos, proposed to break off this hateful yoke and to subdue the Bulgarians and Slavini. He ordered the mounted legions to pass over into Thrace, which had been invaded by the Bulgarians, whom he defeated. He also invaded the country occupied by the Slaves, who were probably more or less subject to the Bulgars, and went as far as Thessalonica. He planted some of them as tributaries in the mountains west of the Strymon, and transported a great number of others into Asia, where they were settled in the districts of Opsicium and Abydos. On his return from this campaign he was waylaid in the defiles of Mount Rhodope, and lost many of his men, and only reached home again with difficulty (*id.* 510). This campaign, according to the Byzantine writers, took place in 686-7. Sigebert dates it in 689 (Pertz, vi, 327).

According to the royal catalogue already mentioned, Isperikh reigned for 60 years, *i.e.* from about 640-700 (Jiresek, 140), and was succeeded by Tervel, who is called Terbeles by the Greeks and Therbellis by Sigebert, and who also belonged to the family of Dulo. In 702 Justinian, who had been driven away from Constantinople, and exiled to the Crimea, had made his way to the court of the ruler of the Khazars, and had married his sister Theodora (Sigebert says he fled to Caian, ruler of the Avars), but having been warned that his brother-in-law intended to hand him over to his enemies at Byzantium, he set sail in a small ship and reached the mouth of the Danube. He then despatched

a messenger to Tervel, asking him to assist him in reconquering his throne, and promising to reward him in a lordly fashion, and also to give him his daughter's hand in marriage. Tervel agreed to help him, and he set out for Constantinople with a large force of Bulgarians and Slaves, which numbered about 15,000. He duly approached the city, to which he gained access by the assistance of his friends, and again occupied the throne. He rewarded his ally the Bulgarian king with rich presents, and also ceded to him the district of Zagoria (*i.e.*, in Slave, the mountain country) the ancient Debelto, situated between Shumla and the Black Sea towards Burghaz.

Schafarik says the district was not completely united to Bulgaria till the year 861; Nicephorus and Kedrenus both pointedly refer to it as *now* called Zagoria (Lebeau, xii, 60-64; Stritter, ii, 511-514; Schafarik, ii, 171). Justinian was not a very faithful ally, and in 705 he went with a fleet and army to Anchialus. The Bulgarians meanwhile retired to their fastnesses; thereupon the Romans, having scattered themselves over the surrounding country for the purpose of foraging, were suddenly attacked and lost a great number of prisoners, horses, and waggons. The Emperor and the rest of them regained the fortress, whence, after making an ignominious display of bravado on the walls, he suddenly took his departure in the night and returned to his capital (Stritter, 514, 515). In 708, when Justinian was being pressed by his rival Philippicus, he again appealed to the Bulgarian king, who sent him 3,000 soldiers. This dissolute prince was deposed in 711 without a blow, whereupon Philippicus allowed the Bulgarians to return home again (*id.* 515, 516). Suidas reports that Tervel, in measuring out the tribute due to him, used to place his shield on the ground, and drew the money into it with his whip; he also planted his spear in the ground, and insisted upon pieces of silk being piled up around it to a considerable height, and exacted as a reward for his soldiers that their right hands should be filled with gold, and their left ones with silver (*id.* 516; Lebeau, xii, 64).

In the year 712, during the reign of Philippicus, the Bulgarians advanced to the Gulf of Céras. So quick was their march, that it was only known at Constantinople when the suburb of Syques was seen to be in flames. A rich citizen was being married there, and a mass of plate and other objects prepared for a sumptuous feast was captured by the invaders. They made a horrible slaughter of the guests, and advanced as far as the Golden Gate of Byzantium, overran Thrace, and returned with a crowd of prisoners and of domestic animals, and reached their homes in safety (Stritter, *op. cit.*, 516, 517; Lebeau, xii, 86).

Theodosius the Third was a feeble creature. He had been suddenly raised to the purple from the position of a small tax-gatherer, and had an ephemeral reign of a few months. In 716 A.D. Theophanes tells us he made an unfortunate peace with the Bulgarians, to whom he abandoned a part of Thrace; the Imperial frontier was fixed at a place called Meleona, identified by Schafarik with Menalio in the Balkans, and an annual tribute of rich stuffs, and of skins dyed red (*i.e.*, no doubt of the famous Bulgarian leather)—the precursors of our Russia leather—to the value of 30 pounds of gold, was to be paid. It was agreed that fugitives who had taken refuge in either country should be given up, and that merchants with proper credentials should have free right of trafficking (Stritter, 517, 518). Theophanes, who tells us these facts, calls the Bulgarian king Komersios, but this is apparently an anachronism. He did not probably reign till later.

Theodosius was succeeded by Leo the Isaurian, who won a speedy fame by repelling the attack which the Saracens in 717, made upon Constantinople. After a vigorous siege prosecuted with their usual ardour and with immense resources the Saracens were foiled and had to withdraw. As they marched towards his ships, which were at anchor below Constantinople, they were attacked by the Bulgarians, who more out of fear than of any love for the Romans, attacked them and caused them a loss of 22,000 men (Stritter, *op. cit.* 518; Lebeau, xii, 123). This is dated by Sigebert in 718. He says the Saracens lost 30,000 men (Pertz, vi, 329). Meanwhile Anastasius, who had been on the throne, and been compelled to retire and become a priest, began to aspire once more to reign, and *inter alia* opened communications with Sisinius, the Imperial envoy at the Court of Tervel, to secure the assistance of the latter. Tervel, we are told, furnished his friend with 5,000 pounds of gold to defray the cost of his enterprise, while the latter opened secret negotiations with several officials at the Court. The Bulgarians had arrived at Heraclea, the ancient Perinthus, where they collected a number of boats, on which to move upon Constantinople. Leo having heard of all this, threatened the Bulgarians with his vengeance, and at the same time offered them a large sum of money, whereupon they treacherously surrendered Anastasius and the Archbishop of Thessalonica, who were duly decapitated (Stritter, *op. cit.*, 519, 520; Lebeau, xii, 127).

We do not again read of the Bulgarians in the Byzantine annals till the year 755; but in the indigenous list of kings previously quoted, we read that Tervel reigned 21 years, *i.e.*, till

720. He was followed by another chief of the family of Dulo, whose name has unfortunately been erased, and he by another Duloid, named Sevar, who reigned five years, that is, till 753. This authority makes him be succeeded by Kormisos, who belonged to another stock, namely, that of Ukil or Vokil, and who was probably a usurper (Jiresek, 127 and 140). He is mentioned by the Byzantine writers who call him Kormesios. Theophanes, who apparently antedates him, calls him Komersios (Stritter, ii, 517, note 24). I may say that Sigebert, under the year 727, has the phrase "Cormisus Bulgaribus dominatur" (Pertz, vi, 330).

In 755 the famous Iconoclast Emperor, Constantine the Fifth, Copronymos, whose energy against the enemies of the empire was as remarkable as his fanatical hatred of monks and images, founded some new towns in Thrace, and peopled them with Syrian and Armenian colonists. While these towns were being built, the Bulgarians appeared and demanded tribute, which being refused them, they proceeded to devastate Thrace, and advanced as far as the famous long walls. The Emperor offered them battle, defeated them, and pursuing their army killed many of them. He then prepared a large naval and land force with which to punish them. With a fleet of 500 ships he approached the Danube, and then harried the land of the Bulgarians and made many captives. He gained a fresh victory over them near the fort of the Markellians, situated on the Bulgarian frontier, and they were constrained to sue for peace, and to offer their children as hostages (Stritter, ii, 520, 521; Lebeau, xii, 231, 232).

In 759 the Emperor again advanced against the Bulgarians who had molested the empire in alliance with the Macedonian Slavini and approached Beregaba, one of the Eastern passes of the Balkans, probably either Nadir Derbend or the mule track from Mesembria to Varna by way of Emineh (Jiresek, 141), but the Bulgarians waylaid his people in the passes, many of them, including some prominent officials, were killed, and their army made a somewhat ignominious retreat (*id.* 521).

According to the catalogue of Bulgarian kings above cited, Kormisos reigned 17 years. This Jiresek would correct, with some probability, to seven, and make him reign from 753-760 (*op. cit.* 140). Kormisos, as we have seen, was an usurper, and did not belong to the old royal stock of Dulo, and we now read that a great internal convulsion took place among the Bulgarians. They extirpated the old royal house (*i.e.*, that of Dulo), and elected a prince named Teletzis or Teleutzas, an arrogant and conceited young man, who was 30 years old, to the throne (Stritter, ii, 522). He is mentioned in the catalogue of Princes, and is there called Telec, and is stated to have been of the family of Ugain (Jiresek, 127 and 142).

In consequence of this revolution a great crowd of Slavini, to the number of 208,000, left their country, and were allowed by the Emperor to settle on the river Artanas in Bythinia (Stritter, ii, 522; Schafarik, ii, 172). Telec having collected a large force invaded the borders of the Empire, whereupon the Emperor Constantine despatched an armament of 800 boats, each carrying 12 horses, to the Lower Danube. He himself marched to Anchialus, where Telec went to meet him at the head of his Bulgarians, and with 20,000 Slavinian auxiliaries. The latter was defeated in a battle fought on the 30th of June, and lasting from eight in the morning till sunset, and many, both Bulgarians and Slavini, were killed, and several of their chiefs were made prisoners. The captives were taken to Byzantium and executed outside the walls in batches by the several factions of the Circus, and in the triumph which followed we are told that *inter alia* two gold basins which the Bulgarian kings had had made in Sicily, and each weighing 800 pounds, were exhibited among the spoils (Stritter, 523, 524; Lebeau, xii, 244).

We now come upon a period of revolution and discord in Bulgaria. The Bulgarians, in consequence of their disastrous defeat, rose in revolt against Telec, whom they killed with several of his chief men. They then raised Sabinus, whom Theophanes calls a relative of Kormisos, and Schafarik and Jiresek, I know not on what authority, his son-in-law (Stritter, ii, 524; Schafarik, ii, 172; Jiresek, 142) to the throne. But he having immediately sent envoys to arrange a peace, was charged with a desire to put the kingdom under subjection to the Emperor, and a tumultuous assembly having met, where he was much assailed, he deemed it prudent to fly, and went to Mesembria, and thence to the Emperor with his intimate friends. Their wives and children hid away for fear of the insurgents, and were at length rescued by some officers sent by Constantine (Stritter, 524). Sabinus was apparently not a native Bulgarian, since he bore a Roman name, and his authority was doubtless very transient. He is not mentioned in the indigenous list of kings.

The Bulgarians now put a new chief named Paganus or Pagarus, as he is called in a gloss to Anastasius (both probably a corruption of Bayan, Jiresek, 142) in his place. This took place in 762.

Two years later Paganus sent envoys to demand peace from the Emperor, and then went in person with his *boilades* and chieftains to the latter's presence. He found him seated on his throne with Sabinus seated beside him. The Emperor apparently detained Paganus and his grandees, upbraided them for their conduct to Sabinus, and then made a hollow peace with them. He furtively sent smoe of his people into Bulgaria, who seized

upon a chief of the Slavini, who according to one reading of Theophanes, was named Seberus, while another makes him a leader of the Seberian Slavini who had committed much ravage in Thrace. They also seized an apostate Christian, a leader of the mountain brigands, called Skamari, and having cut off his hands and feet, made him over to the doctors, who opened his body while he was still living and made a public demonstration of anatomy on the mole of St. Thomas, after which he was thrown into the fire (Stritter, 526; Lebeau, xii, 250, 251). Shortly after this the Emperor again invaded Bulgaria, the outposts to which were bare of defenders, because of the recently made peace, and went as far as Tuntzas, or Tzikas, *i.e.*, the river Tytscha, laid the country waste, and then returned in a panic without effecting anything (*id.* 526; Schafarik, ii, 172).

The next year Constantine again invaded Bulgaria, where the people had driven out Umar or Omar, the nominee of Sabinus, and had put Toktu, the brother of Bayan, in his place. This Omar is the last of the Bulgarian rulers named in the native list so often mentioned. His name is clearly not Ugrian, and points to the influence of Mohammedanism having already been potent among the Bulgarians. Omar, according to the list, was of the family of Ukil. It makes him immediately succeed Telec.

On the approach of the Emperor, as I have mentioned, the Bulgarians fled to the woods about the Lower Danube. Nevertheless a large number of them were killed, including Toktu and his brother Bayan, who, if the same person as Paganus, had apparently returned again to his own country.

Another of their leaders, whom they called Campaganus (he is identified with Paganus by St. Martin (Lebeau, xii, 252, note 2), fled towards Varna, and had virtually escaped when he was put to death by his slaves. The Bulgarians seem, in fact, to have been badly crushed, and the Romans wasted the greater part of their territory (Stritter, 526, 527). In 766 Constantine advanced again to the borders of the Bulgarians, and determined to assail their stronghold, called Embolos (*i.e.*, the outlet) of the Berigianians. For this purpose he prepared a vast flotilla of 2,600 ships, and ordered them to rendezvous at Mesembria and Ankhialus. This fleet and the immense army which was its complement greatly terrified the Bulgarians, and they were prepared to treat for terms, when a terrible storm intervened, destroyed the fleet, and a vast number of his people; whereupon the Emperor returned to Constantinople (*id.* 527, 528). This was a great blow to the empire, and we read how in 768 the Slaves of Macedonia and Thessaly made a piratical raid on the islands of the Ægean, and it cost 2,500 robes to ransom

the inhabitants of Imbros, Samothrace, and Tenedos, whom they carried off (Jiresek, 142).

In 774 the Emperor Constantine the Fifth ventured upon another campaign against the Bulgarians. He sent his cavalry to occupy the passes and went to Varna with 2,000 transports. Theophanes tells us he proposed to go himself to the mouth of the Danube against the Russian boats, which he calls "Khelandia." These Russians were no doubt Scandinavians and were apparently allied with the Bulgarians. It is the first time they are mentioned in history. The Emperor when he reached Varna became frightened, and was for returning. On the other hand, the Bulgarians, frightened at his arrival, sent Boilas and Tzigatus (Anastasius says, Boilan Tzigates (?), i.e., the Boila Tzigates) to treat for peace. A treaty was accordingly made, and its conditions written down, and each ruler promised to respect the other's border. Thereupon the Emperor, who was by no means anxious for fighting, returned home again (Stritter, 528, 529). A few months later, however, we read that the Bulgarians sent an army of 12,000 men, under their boilades, who made an attack upon Berzetia (Jiresek glosses this as Brsjaken land (?)) which was apparently an independent country, and to capture prisoners. The Emperor thereupon collected a large force, and in order not to seem as if he was breaking the peace, he professed it was directed against the Avars, who were then very troublesome.

He fell upon Bulgaria by way of Lithosoria (?) with 80,000 men, and won a potent victory, and returned with a large booty. This treacherous campaign was nevertheless dignified with the name of a noble war, since no Roman soldiers or towns suffered. It was clearly a victory won through the Byzantine virtue of craft over the too trusting Bulgarians, and the fact is so acknowledged by Theophanes and the more candid chroniclers. Knowing that his conduct had involved savage reprisals, the Emperor in 774-5 prepared a fresh fleet, which was again broken to pieces by the weather, near Mesembria. The Bulgarians now paid back the treacherous Emperor in his own coin. Teleric their ruler (he is so called by Zonaras, Theophanes calls him Tzerig, and Kedrenus Eleric) wrote the Emperor a letter, in which he professed that he wished to desert his own country, and go and live with him. In the meanwhile, for his own safety, he wished the Emperor to inform him of those among the Bulgarians who were his (Constantine's) friends and partizans, in order that he might confer with them. The Emperor ingenuously sent such list, and these friends of the empire were speedily put to death, much to the chagrin of Constantine (Stritter, 530, 351; Lebeau, xii, 302,

note 3). It was probably to avenge this wrong that, in 775, he set out on another Bulgarian campaign, but he died on the way (*id.* 531).

Constantine was succeeded by Leo the Khazar, in the first year of whose reign Teleric fled to Constantinople, where he was well received, married the cousin of Leo's wife Irene, and was given the title of a patrician. He was baptized, the Emperor himself acting as his sponsor, and was rewarded with rich presents (*id.* 531-2). In 789 the Bulgarians again assailed the empire. Philetus, Duke of Thrace, was surprised by them and perished with the greater part of his army (Lebeau, xii, 352).

In the spring of 791 the young Emperor Constantine the Sixth fought against the Bulgarians, who were led by their king Kardam, at Provat on the river St. George in Thrace, the modera Pravadi in the Balkans, between Shumla and Varna (*id.* 532, 533; Schafarik, ii, 173; Lebeau, xii, 357, note). After a slight skirmish both sides seem to have been panic stricken, and returned homewards. The following year he again went to Bulgaria, and built the town called the fortress of Markellians in the Balkans. Meanwhile Kardam with his people occupied the passes; and the Emperor was led away by his youthful ardour and the advice of his councillors, one of whom, Pancratius, who is described as an astronomer or astrologer, foretold that he would win a victory. He was, on the contrary, terribly defeated, and lost a great number of men, including several great dignitaries of state, among whom were Lakhanodracon, the best general and most wicked man in the Empire, and Pancratius himself, while the baggage and sumpter cattle, and the Imperial equipage fell a prey to the victors (*id.* 533; Lebeau, xii, 359).

It would seem the Byzantine Empire, in addition to its other humiliations, had to pay tribute to the Bulgarians.

For fourteen years the annals are silent about Bulgaria, when we are told there came a minatory message from the aged Kardam threatening that, unless the Emperor would agree to pay him tribute, he would advance to the Golden Gate of Constantinople, and would overrun Thrace. The Emperor thereupon sent him some dung folded in a cloth, and said, "The tribute you demand I send you. As you are an old man I do not wish to fatigue you, I will come and meet you at the fortress of the Markellians; perhaps you will meet me there, and God shall judge between us." He thereupon collected a large force, and proceeded to attack Kardam and his Bulgarians in the forest of Abroleba, for seventeen days; after which the Bulgarians grew weary of the struggle and returned home again (Stritter, ii, 534; Lebeau, xii, 369). We do not read of the Bulgarians again till 807,

when Nicephorus proposed to march against them, but was detained at home in consequence of a conspiracy.

In the year 809 the Bulgarians waylaid the Imperial military chest near the river Strymon, and captured over 100,000 pounds of gold, and a large number of the soldiers with their commander were killed. A general muster then took place of the "taxati proceres" from the neighbouring districts, whereupon the Bulgarians withdrew (Stritter, ii, 535). The same year before Easter, Krum, the Bulgarian ruler, invaded the Roman borders, captured Sardica (*i.e.*, the modern Sophia) and killed 6,000 soldiers, besides many of the citizens. The Emperor Nicephorus would thereupon have marched against them, but his councillors were afraid, and began to disperse. On his speaking harshly to them, some deserted, including a famous Arab mechanician, named Enthymius, and he had to return without doing anything. Two years later Nicephorus again set out with his son Stauracius, and with a large army from Thrace and other parts, among whom were a large number of poor people armed with slings and poles, who were attracted by the hopes of pay. When this army reached the fort of the Markellians Krum grew frightened and sued for peace, but the Emperor, who is described as a second Ahab by the chronicler Theophanes, insisted upon trying his fortune in the dangerous country of Bulgaria. Before he entered it, however, he was deserted by one of his favourite slaves who fled to the enemy, taking with him 100 pounds of gold and the Imperial robes, a desertion which was deemed of sinister omen; we are told the Emperor constantly repeated to himself "I know not whether I am compelled by God or the Devil, but an irresistible force seems to urge me on." At first the Imperialists were successful, and behaved with great cruelty; the Emperor ordered even the children to be slaughtered, and busied himself only with looking after the plunder. Krum's palace, which Zonaras says was called his aula by the Bulgarians, was burnt, and the Emperor put his seal upon his effects and punished several soldiers who committed rapine there by cutting off their hands and ears. Krum begged him to spare his people, and offered to accept any terms he should dictate; but this being refused, he assembled and harangued his men, and blocked up the exit and ingress to the place where the Imperialists were encamped with wooden fences like a wall. The Bulgarians worked so hard that in two days the Imperialists were caged in an iron grasp. When Nicephorus learnt what had been done he despaired of escape. After some days the Bulgarians made a night attack upon the camp and caused a terrible slaughter. Nicephorus himself and his chief men were killed and beheaded. Among the latter were Aetius, Peter,

Sisinius, Tryphyles, and Theodosius, all patricians. Salibaras, called the Prefect, also a patrician; Romanus the patrician, and Duke of the East, the Duke of Thrace, and many protospatharii, spatharii, commanders of the army, men of the bedchamber, provincial officers and a vast crowd of people, so that the noblest and greatest among the Christians perished on that day, besides a vast number of arms and treasure. The chronicler naturally adopts very lugubrious phrases in describing the disaster. He adds that Krum carried off the Imperial head as a trophy, hung it on a tree, and showed it in triumph to his various peoples, and then in the fashion so prevalent among the Turcoman races, when the flesh had decayed off it, he covered the skull with silver, and converted it into a drinking cup, to be used when he joined in the feasts with the zdravicas or boljars of the Slavini. Stauracius escaped badly wounded to Adrianople, and died six months later; others also found refuge in the forests and marshes (Stritter, *op. cit.* 536-541; Lebeau, xii, 446-449), but altogether the disaster was appalling, and gave rise to one of Gibbon's sonorous phrases, in which he says that the advantage of the death of Nicephorus overbalanced, in the public opinion, the destruction of a Roman army (*op. cit.* vi, 88).

The next year Krum overran Thrace and Macedonia. He captured Debeltos, not far from the Black Sea, and carried off its citizens and bishop. The chronicler says he transported them into "another country," by which expression Schafarik understands Hungary, but which doubtless means Wallachia. Meanwhile the Emperor Michael, who had marched against him, had to try and conciliate his own rebellious soldiers with presents and otherwise, and the invaders had it their own way accordingly. Ankhialus and Berrhæa were deserted, as were Nicæa, Philippopolis, Probatir (*i.e.*, Pravati), Philippi, and Amphipolis, then called Strymon (Stritter, *op. cit.* 542, 543).

Krum, who was master of a portion of Thrace and Macedonia, now made overtures through his envoy Dragomir (Dargameros) to renew the pact formerly made between Theodosius and the Bulgarians in the year 716, with the additional conditions that the Greek merchants should in entering Bulgaria make a declaration of the goods they had with them for customs purposes, and in default have them confiscated, and that the Emperor should undertake to restore not only Bulgarian fugitives, but also such Roman prisoners as had succeeded in breaking their bonds and escaping (Stritter, *op. cit.* 543). In case his terms were refused, he threatened to attack Mesembria, the modern Misivria, on the Gulf of Burghas, which he proceeded to beleaguer. His siege artillery was superintended by an Arab skilled in such machines, who had been baptised

under the name of Euthymius, and had been stationed at Adrianople; but not getting the rewards he expected from the Greeks, and having, in fact, suffered punishment at their hands, he deserted to the Bulgarians, as I have mentioned, and taught them the secrets of his craft. They were not long in capturing the city, and secured much booty of gold and silver there, including 36 brazen tubes to shoot Greek fire through, with a quantity of that terrible ammunition (*id.* 544–548). Michael was now anxious to make peace, and sent for the chief ecclesiastical dignitaries to consult with him.

The question of surrendering the refugees was the chief difficulty. The Bulgarian laws were very severe, and many to escape them had fled to Constantinople and been baptized, and had attracted a number of others in their wake, so that the Bulgarian king began to fear that his kingdom might be depopulated. On the other hand, the Bulgarians held in captivity even a larger number of Greek prisoners. This weighed with the Emperor and others who, with Hobson's choice before them of giving up certain Bulgarians to condign punishment or of leaving a number of Greeks to suffer death, chose, we read, like people in a shipwreck, to side with those dearest to them, a conclusion which would also secure peace. Two of the principal church dignitaries raised their voice against this course. They declared it would be infamous to surrender refugees who had trusted themselves with them, and who in becoming Christians had in fact ceased to be refugees. Constantinople had become not merely their home but their sanctuary, and as to their own compatriots they ought to release them with the sword and not at the expense of their victims (Stritter, 544, 545; Lebeau, xii, 465, 466). Meanwhile Krum, having captured Mesembria, proceeded to lay waste Thrace. His course was only stayed by the outbreak of a terrible epidemic, which destroyed two-thirds of his army, and compelled him to retire. The Emperor determined to take advantage of his weakness. He collected his forces, chiefly Cappadocians and Armenians, who were, however, scandalized by the interference in military affairs of the Empress Procopia. It was decided that the army should not move beyond the Roman frontier, and soon its exactions upon the citizens was found to be even more harassing than a hostile invasion. In June Krum crossed the frontier and advanced to Bersinikia. Some small skirmishes took place in which the Greeks generally won. Meanwhile the extreme heat severely taxed the Bulgarians, and the Emperor was for trusting to the weather rather than his arms. His prudence aroused murmurs among his men, incited by Leo the Armenian, who had his own game to play, and a battle was determined upon. In this struggle the Imperialists seem at

first to have been successful, but according to the chroniclers the tide of victory was turned by the defection of Leo, who withdrew with his men at a critical moment, when a panic ensued. At first the Bulgarians, thinking the retreat a ruse, refused to follow, but presently, seeing the Greeks scattered, they fell upon them furiously, and having slaughtered a great number secured a crowd of prisoners and a great quantity of trophies.

Michael retired to Constantinople, and soon after resigned the throne to Leo who was raised to it by the soldiery (Stritter, 548-553). Krum, leaving his brother to attack Adrianople, advanced himself towards Constantinople and made a perambulation about the city from Blakernas to the Golden Gate. In a meadow outside, we are told, he went through some demoniacal sorceries and sacrificed men and cattle (Simeon Logotheta et auct. incertus Stritter, 554). One author mentions especially dogs as being sacrificed. Krum then went down to the seashore where he dipped his feet in the water and washed them, and then sprinkled the army and made his progress to his tent between two rows of his concubines, who meanwhile sang songs in his praise. The strength of the walls and of the defending army soon showed him that it would not be feasible to take the city. He accordingly was ready to listen to terms, and was apparently willing to withdraw if secured the payment of an annual subsidy, and a present of rich garments and a number of maidens. He also demanded permission to thrust his spear into the Golden Gate of the city. Leo suggested a conference, and that Krum, attended by some of his people unarmed, should again repair to the strand while he (Leo) would, in company with some of his people, draw near in a ship, and they could arrange terms at a colloquy. Meanwhile the faithless Emperor ordered three of his men to plant themselves in ambush, and having given them the watchword ordered them on a given signal to fire their arrows on the unsuspecting Bulgarian chief. The latter duly set out to keep his appointment, accompanied by three companions, namely, Constantine called Patzes, who had some time before fled to the Bulgarians, and married Krum's sister, Constantine's son, and his Logotheta or finance minister. The Bulgarian king dismounted, whereupon the signal was duly given, the three men in ambush sprang out. Krum got on his horse, and although wounded fled and reached his people in safety. His companions, however, were captured, and the Logotheta was put to death (*id.* 554-556).

Naturally enraged at this act of wanton treachery, Krum proceeded to wreak his vengeance with no light hand. He wasted the district with fire and sword, burnt the beautiful

churches outside the city gate, which had been built by Irene, Nicephorus, and Michael, with the monasteries and palaces. Then passing on to the suburb of Saint Thomas, he destroyed the palaces and sacred structures there, burning the buildings and breaking the columns, and destroyed the circus with its marble statues, its brazen lion, &c., killing all whom he met, even the cattle. Thence his people made their way to the strand and set fire to all the fleet, and captured a vast booty, and burnt a large portion of the town inside the Golden Gate as far as the Riggins, which falls into the Propontis west of Selymbria. They overthrew the famous bridge at the river Athyras, now called the Karasu, and wasted the town, ravaged Selymbria (now called Selivria), Daonis, and the environs of Heraclea. They laid waste Rhædestas, now Rodosto, on the Sea of Marmora, plundered the outskirts of Panios, and then entered the Ganian mountains. From this district they carried off a great number of prisoners, and collected a vast troop of cattle, women, and boys, whom they sent off into Bulgaria. They then advanced into the Chersonese to Hexamilios, Abydos, and Ebros, and overthrew all the towns great and small from there to Adrianople (*id.* 556, 557). They then beleaguered Adrianople itself, whose citizens, pressed by famine, consented to surrender the town. The ravage must have been terrible. Krum was at length avenged, and withdrew with a great body of captives, who were transported to "Bulgaria beyond the Danube," a phrase which has been interpreted by Schafarik as meaning Hungary as far as Pesth, Erlau, Marmarosh, &c., and the Theiss (*op. cit.* ii, 174 and 201, 202), but I believe the phrase means merely Wallachia, which was a part of the Bulgarian kingdom, and I am strongly inclined to believe that the Vlaks of this district and of Transylvania are largely, though not altogether, the descendants of the Macedonians transported by Krum and his successor.

Among those transported were all the citizens of Adrianople, including Manuel the bishop, also the parents of Basil, who was afterwards Emperor, and Basil himself then a boy. These emigrants, we are told, were closely attached to the Christian faith and converted many of the Bulgarians, among whom there were at this time no Christians (*id.* 557, 558, note). Elated by his former victory Krum, it would seem, repeated his attack the next year and proceeded as before to harry the inhabitants and cattle; thereupon the Emperor Leo once more sent hostages to treat for peace. This being scornfully rejected, he marched with his troops towards Mesembria and intrenched himself near there. The Bulgarians were not long in coming, but meanwhile he secreted his people on a mountain, afterwards called Leo's Hill, whence after nightfall he fell on the unsuspecting invaders,

who were panic stricken, many of them were killed, while Krum himself escaped with difficulty. The Emperor then to have made a raid into Bulgaria, where he made many seems captives. The men were slaughtered, the women carried off as slaves, while the children in arms were barbarously broken against the stones, and Leo returned home in triumph (*id.* 558-560).

This was a fortunate issue for the Greeks, who were no doubt in a very serious difficulty, and we are not surprised to find that this very year, *i.e.*, in 814, envoys went to Louis, the Emperor of the Franks, to solicit his aid against the Bulgarians and other barbarians (*Ann. Lauriss, Pertz, i, 122*). Apparently during the succeeding winter, which was a very mild one, Krum at the head of 30,000 men, who are said to have been encased in iron, advanced as far as Arcadiopolis, which they captured, and then made a regular "baranta" after the fashion of the Turkomans, driving off 50,000 people captive, who were doubtless transported across the Danube, and sent to join their relatives in Wallachia and Transylvania. These captives were transported with all their property, including their cattle-yokes, their domestic furniture, clothes, tools, and herds of oxen and sheep. It was, in fact, the transportation of a whole people for the purpose of colonization. The Roumans of our day are in every probability the descendants of the Thracian peasants carried off by the Bulgarians, a transportation which began in the sixth century, but was largely the work of Krum.

Krum made still another campaign against the empire. We are told that he collected a vast army of Avars, and of different kinds of Slavini, with an elaborate siege apparatus, 5,000 carts and 10,000 sumpter beasts, and marched towards the Imperial city. Leo having heard of these preparations, ordered a levy and enlarged the defences of his capital, causing a new ditch and rampart to be made on the side of Blakhernas. The impending struggle, however, was averted by the death of Krum, which occurred on the 13th of April, and was accompanied by bleeding at the mouth, ears, and nose. It was reported that some mariners coasting along the Bulgarian shore heard a voice from heaven announcing his death, which was no doubt most grateful news to the Greeks. Schafarik and Jiresek date the event in the year 811—I know not on what authority, and in fact this date is hardly compatible with the events that are reported as having occurred between the time of his great defeat and his death, and it would seem that he did not die at least before the year 816.

Krum was a most important figure in Bulgarian history, and his prowess was felt not only in the south but also in the north

of his kingdom. The victories of Charlemagne had broken the power of the Avars and made it easy for Krum to extend his attacks in the direction of Pannonia, and he overthrew the power of the Avars to its very foundation. The Bulgarians, we are told, were much pleased with the dress of the Avars, which they adopted in lieu of their own. Krum questioned his Avar prisoners as to why their sovereign and they had been so grievously overthrown. They replied that false witness and mutual slanders had been the cause of their misfortunes as they had of other powerful States. The wise and prudent had been displaced from the government by the intrigues of the powerful; injustice and venality had affected the administration of justice, drunkenness had prevailed greatly among them, while others had been corrupted by bribes, and that all of them had become merchants and had taken to cheating one another. Thence, they said, their overthrow. Accordingly Krum called together the Bulgars, and created new laws for them, punishing with death those who should accuse others falsely. He forbade the use of intoxicating drinks, and ordered the vines to be torn up by the roots. Avarice was condemned, and hospitality and generosity inculcated, &c. (*id.* 562, 563). The extent to which the Bulgarians dominated at this time in Pannonia has been much exaggerated. It would seem from the few facts we possess that the power of the Avars had now been thoroughly crushed, and that their old country was now divided between the Franks and the Bulgarians, who were conterminous with one another. Schafarik, Dummmler, and others, make the Theiss the western boundary of the Bulgarian kingdom, and include in it all the country to the east of that river; but from the negotiations that took place shortly after this with the Franks about a definite boundary it is not probable that the limit was of such a definite nature as the river Theiss. It seems, on the contrary, to me, that there intervened between the Bulgarian and Frankish borders a piece of more or less independent territory still subject to Avar princes, who were dependent on the Franks.

Eginhardt tells us that in 818, while the Frank Emperor was staying at Heristal, envoys went to him from the Obodriti as well as from Bornas, the ruler of the Godusceni and Timocieni, who had lately separated from the Bulgarians and placed themselves under the authority of the Franks (Eginhardt *Annales*, Pertz, i, 205).

These Slavic tribes, as I showed in the former paper, occupied the lower Theiss, the Timok, and the Lower Morava, and it is more than probable that the Bulgarian frontier was now actually pushed to the latter river while the Serbs beyond were doubtless also dependent on the great Krum.

According to one tradition, Krum was succeeded by a chief named Tsokos; another authority makes him be succeeded by Dukum, which may be a form of the same name, and he again by Diceng or Ditzeng (Lebeau, xiii, 10, note, and the prologue and menologium of the Emperor Basil cited by Jiresek, *op. cit.* 146).

Tsokos is said to have put to death Manuel, Archbishop of Adrianople, with some companions whom he first tried to make apostasize. According to Golubinski three other bishops and 374 persons were thus put to death (Jiresek, 140). Kedrenus tells us distinctly that Krum was succeeded by Krytegon, who was much more cruel than himself, and he assigns to him the execution of the Bishop Manuel (Stritter, 563).

We now meet with another Bulgarian king, called Ombritag by Theophylactus, Mortagon by Kedrenus, and the continuator of Constantine, and Omortag by the Frank annalists, and in an inscription to which I shall presently refer. The tremendous victory won by the Emperor apparently exhausted the Bulgarians very materially, and we are told that Omortag, not being able to contend successfully against the empire, determined to send home the other prisoners, among whom were Basil and his parents (*id.*). Roesler would argue that all the people transported by Krum returned again on this occasion, but this is quite incredible, as we have seen the latter transported, a whole nation with all its impedimenta, while the returned prisoners were doubtless some of the grandees who had special ties with the empire.

Omortag at this time made a pact with the Emperor Leo by which he agreed to a thirty years truce, a truce which really lasted for thirty years. Leo swore by the Bulgarian gods, while Omortag swore by the God of the Christians. On the accession of Michael, and the rebellion of his general, Thomas, who laid siege to Constantinople, Omortag wrote to the Emperor offering him his assistance. This the latter refused. Nevertheless, the Bulgarian king, who was probably anxious for some booty, and pleaded the obligations he was under by virtue of the recent treaty, prepared an army, entered the Roman borders, and pitched his camp at Kedoctus, probably the Aqueduct near Heraclea. There he fought a savage battle with Thomas, whom he defeated, and returned home laden with captives and booty; this was in the year 822 (Stritter, 564-6).

Two years later we find Omortag sending envoys to the Frank Emperor, who sent back one called Machelin with them as his representative. About the same time envoys also went from the Obodriti Pradecenti, who lived east of the lower Theiss, to complain of the constant harrying they were subject to on the part of the Bulgarians. The following year fresh envoys went from

Omortag to settle the disputed frontier between the two empires. They were apparently detained in Bavaria for some time, and only admitted to an audience a few months later. This embassy was repeated again in 826, but it was apparently ineffective, for in 827 a Bulgarian fleet went up the Drave, and devastated the country of the Pannonian Slaves, then dependent on the empire, with fire and sword. The Frank officials were driven out and replaced by Bulgarian governors (Eginhardt *Annales*, Pertz, i, 212–216). In 828 the Bulgarians devastated Upper Pannonia, and as Baldric, Duke of Friauli, had proved himself unfit to cope with the invaders, he was deprived of his province, which was divided into four counties (*id.* 217).

Enhardus, the Fuldensian annalist, tells us further that Louis the Younger was in 828 sent against the Bulgarians. In 829 the latter again sent a fleet along the Drave and burnt several towns within the Imperial borders (Pertz, *id.* i, 359, 360).

The Frank annalists do not give the details of the Bulgarian encroachment upon Pannonia as we would wish, but from a number of facts Schafarik and others have concluded that Syrmia lying between the Save and the Drave, Eastern Hungary from Pesth and the Matra mountains to the sources of the Theiss, together with the district between the Serbian Morava and the Timok, remained subject to the Bulgarians until the irruption of the Magyars (*op. cit.* ii, 176). This I hold with Hunfalvy to be quite improbable. The Bulgarian attacks on Pannonia were mere raids, and I have little doubt that their permanent possessions north of the Danube were limited to Wallachia. I shall have more to say about this in the next paper of this series.

We do not know when Omortag died. In 1858 Mr. C. Daskalof found in the Lavra of the 40 martyrs at Tirnova, which has been altered into a mosque, a rude inscription in Greek letters on a red marble pillar which looks very ancient, and as if it had been in the water a long time. This inscription records the building of three houses or palaces by Omortag near the Danube. There is no date or religious symbol on the pillar, which Jiresek supposes was once placed on a grave mound on the Danube, doubtless the burial place of the chieftain (*op. cit.* 148, 149). The inscription is otherwise interesting as it gives us the correct form of his name.

At this point we reach a very confused period in Bulgarian history,—Jiresek has passed it by without comment and Schafarik throws little light on it. The fact is that we are limited to a passage of George the Monk, which was copied by Leo the Grammarian, and which is singularly inconsequent and contradictory. He tells us that during the reign of the Emperor

Theophilus (*i.e.*, 829–842), the commander of the army in Macedonia was called Cordyles. He, it seems, had been one of the Macedonians transported by Krum, and when he found his way home again had left his son in command of the Macedonians north of the Danube, *i.e.*, of the Vlaxhs. He now proposed to the Emperor that he should send a fleet which might transport these exiles home again.

About this time Leo the Grammarian says that Baldimer, *i.e.* Vladimir, the grandson of Krum and father of Simeon, was the ruler of Bulgaria. The father of Simeon was the Tzar Boris or Bogoris who was therefore the same person as the Baldimer of this account. Boris is said by Constantine Porphyrogenitus to have been the son of Presia, and the probability is that Presia was in fact the successor of Krum. Of him we only know that, according to Constantine, he fought for three years against Vlastimir, or Vladimir, the ruler of the Serbians, without any result (Stritter, ii, 154). Let us now turn to the statement of George the Monk. He tells us that when Cordyles made the proposition above named, Baldimer (or Boris) was absent at Thessalonica, and the captives took advantage of the opportunity to set out with their goods. Baldimer now returned, crossed the Danube and attacked them. Driven to despair they put Tzantzes and Cordyles at their head, resisted and killed some of the Bulgarians and captured others. Unable to recross the river they appealed to the Hungarians, here called Ouggroi, and who are now mentioned definitely for the first time. Meanwhile the Imperial flotilla arrived. At this juncture the Macedonians noticed a vast body of Hungarians coming towards them and threatening them. They offered to allow them to embark if they would abandon their property to them. As they refused to do this, a struggle ensued, and the Hungarians were put to flight. They then embarked and arrived safely in Macedonia (Stritter, ii, 566, 567; Lebeau, xiii, 183, 184). Here, again, we have a mere handful of people. It is incredible that any flotilla at the command of the Greek Emperor should have transported more than a mere fraction of the crowds who were carried away by Krum. There is one word in the statement of Leo which has caused some difficulty. He refers to the Bulgarian king in one passage as Komes. Now it is curious that in the inscription of Mortagon already referred to he is styled Giom Mortagon. Can this be the Bulgarian form of the title Khan?

In 843, when the throne of Byzantium was occupied by the Emperor Michael the Third, under the tutelage of his mother Theodora, we find Boris threatening to invade the empire; but on receiving a martial reply from the empress he agreed to renew the pact which his predecessors had made. Theodora now

sent to redeem a monk called Theodore who was surnamed Kuphar, and who had been made captive, while Boris similarly sent to ask for the return of his sister who had been captured by the Greeks long before, and was then living in the palace. She, it seems, had become more or less a Christian, and now sought to influence her brother, who had heard something of the faith from the monk Theodore (Stritter, ii, 568, 569). This religious proselytism was not altogether an effective peacemaker, for we read of the Bulgarians making a raid upon Macedonia in 852 in which they suffered severely (*id.* 569, 570). But this was a solitary break in a really long truce. The next year Boris was at issue with the Franks. He had sent embassies to Louis the German in 845 and 852, probably to complain about an invasion of his borders. These were followed in 853 by a hostile movement, in which his people, who were in alliance with the Slavic subjects of Rastislaf, then the ruler of Moravia and Slovakia, were defeated (Ruodolphus Fuldensis Pertz, i, 364-367; and Prud. Trec. *id.* 448).

Boris had another war on his hands against the Serbians, in which he tried to revenge his father's defeat by Vlastimir, and attacked the latter's sons Muntimir, Stroemir, and Goinik, but he was defeated, and his own son Vlastimir or Vladimir was captured, together with twelve war engines.

This disaster induced him to come to terms. He was then in the Serbian land, and as he feared some ambush on his way home, he was escorted as far as Rasa, *i.e.*, Novi-Bazar, which was on his frontier, by Borena and Stephen, the sons of Muntimir, who were rewarded by rich presents, and in turn gave him two maidens, two falcons, two dogs, and 90 skins, as was the fashion of making peace among the Bulgarians. Presently civil strife arose between the three Serbian Princes, and Muntimir, having won the day, sent his two brothers captive into Bulgaria, retaining as hostage Peter, the son of Goinik, who soon after escaped to Croatia (Stritter, ii, 155 and 575, 576). Stroimir married a Bulgarian wife. During the reign of Muntimir in Serbia, many of his people were converted by missionaries sent by the Emperor Basil, and we are told that both the Serbs and Croats now acknowledged their dependance on the empire (Stritter, ii, 92).

Constantine Porphyrogenitus mentions that Boris had a struggle with the Croats, in which he was not very successful, and agreed to a peace (Stritter, ii, 600).

We now reach a notable event in Bulgarian history, namely, the conversion of its king to Christianity. This took place, according to Schafarik, who has examined the chronology of these events with some pains, in the year 861 (*op. cit.* 181, note 2).

From the Byzantine writers we learn that Bulgaria, being afflicted by famine and pestilence, the Emperor Michael marched against it, whereupon Boris, probably for political reasons, determined to become a Christian. Peace was accordingly arranged with the Emperor on the terms that Boris was baptized and received the name of Michael, no doubt after the Emperor, while the Greeks made over to him what their annalist describes as the sterile district, from the pass of Sidera (*i.e.*, Demirkapu or Vratnik near Sliven), as far as the coast town of Debeltus, called Zagora, in Slavic, and which was situated near Burghas (Jiresek, *op. cit.* 153, 154).

A curious Saga which has been dissected by Golubinski makes out that Boris was converted by a painter named Methodios, who painted a picture of the Last Judgment so realistically, that the King was frightened and was led to change his faith, but the mistake has really arisen, as this author has shown, from a confusion of a painter named Methodios with Methodios the Apostle of the Slaves (*id.* 154).

The latter was not improbably the chief instrument in spreading Christianity in Bulgaria at this time, and Schafarik argues from the Moravian legends of Cyrillos and Methodios, the life of the Bulgarian Clement, and the testimony of Diokleatos, that he in fact preached the Gospel in Bulgaria before he went to Moravia in 862 or 863 (*op. cit.* ii, 181, note 2), thus confirming the statement of the Byzantine author. The pact between Boris and Rastislaf of Moravia did not last long, for in 863, while we find the latter assisting Carloman, the son of Louis the German, who was the Governor of Carinthia, in a rebellion against his father, we are at the same time told that Louis was assisted by the Bulgarians (Ruod. Fuld. Pertz, i, 374). Carloman having submitted, Louis and Boris went against Rastislaf, with whom they made a treaty of peace at Tulln, on the Danube, which held good during the rest of the century (Jiresek, 151). The Franks and Bulgarians, however, had a quarrel of their own, and Hincmar tells us Louis marched against the Bulgarian Khan who had promised to become a Christian (Pertz, i, 465). In 866 envoys went to Louis at Ratisbon from the Bulgarians, among whom, according to the Bertinian annals, was the son of the Bulgarian King, and reported that their Khakan had become a Christian, and asking that teachers might be sent (Annals of Fulda, i, 379). Another notice says that the King had been baptised the year before. Louis accordingly sent Ermanric Archbishop of Passau, with priests and deacons to spread the faith in Bulgaria; but when they arrived they found the ground already occupied by evangelists from Rome, who were baptizing and preaching everywhere. They therefore returned home again (*id.* 380).

The contradiction in dates, &c., between the Frankish and Byzantine authors at this time is, perhaps, due to the confusion that then reigned in the religious world in these parts. As Jiresek says, Bulgaria was looked upon by all creeds as an Eldorado where spoil could be secured, and Boris, who was probably a Christian from policy, swayed backwards and forwards in his loyalty to the creeds of Rome and Byzantium. He also had a struggle with his own bolyars, who did not wish to be converted. A rebellion in fact broke out, and 52 of the stiffnecked were killed, and a death blow given to heathenism. Among those anxious for converts in Bulgaria were Jews, who had large colonies at Thessalonica, in the Crimea, and among the Khazars. There were also Monophysites, and especially Paulicians, who were introduced into Thrace by Syrian and Armenian colonists from Syria. Peter Siculus, who went as a Byzantine envoy in 868 to the Armenian Tefrica, was told by the Paulicians there that they had the intention of sending some of their number to try and reconvert the newly converted Bulgars from the Greek faith to their own. Peter dedicated a work he wrote against the Manicheans, which is still extant, to Joseph, the first Archbishop of Bulgaria. Meanwhile strange positions were occupied by the orthodox; one body of Bulgarians set up as their leader a layman who had baptised them. Some of the Greek Popes or Priests forbade bathing on Wednesdays and Fridays, others the eating of flesh of animals which had been killed by eunuchs, &c. (Jiresek, 155, 156). But the great feud was between the Latin and Greek creeds. Boris was apparently afraid that Greek bishops in Bulgaria might be the precursors of Greek domination there, and we accordingly find him, in 866, appealing to the Pope, and as we have seen, to the Frank Emperor, for missionaries. His envoys to the Pope took a document embodying 106 requests, some of which were naive enough, for instance, whether in future they would be permitted to wear trowsers (*femoralia*). They also especially pressed for the appointment of a patriarch of their own, an embarrassing request which the Pope cleverly evaded by saying he first proposed to send some Bishops to make inquires (Jiresek, 156). Pope Nicholas accordingly sent the Bishops Paul and Formosus, with a company of priests. Whereupon the Popes of the Greek rite were driven out (Jiresek, *op. cit.* 156), but a difference shortly after arose. Nicholas having died, his successor Hadrian II claimed the right to appoint the Bulgarian Archbishop. The latter nominated Sylvester to the post, while Boris claimed it either for Formosus, or for the deacon Marinus. Meanwhile a revolution took place at Constantinople, by which Basil, who was a Slave by birth, and as we have seen had been a prisoner

among the Bulgarians, mounted the throne. In conjunction with the Patriarch Photius, he began a struggle with Rome which speedily developed into the Great Schism, as it is called. A Council was summoned at Constantinople, to which Boris who was at issue with the Pope, sent as his representatives Peter, Zerbulas, Zundikas and Twentarus (Schafarik, ii, 183).

This Council, which is referred to sometimes as the 8th General Council, was attended by Legates from the Pope. It met in the year 869; one of its most important acts was the deposition of Photius, and it widened the breach with Rome. An important subject of debate was the question as to which patriarch the Bulgarian Church was subject to. Before the invasion of the Bulgars, their country had formed a part of the Eastern Empire, but in ecclesiastical affairs had been ruled by the Archbishop of Thessalonica, who was the deputy of the Bishop of Rome. The Greeks argued that Bulgaria ought to follow the fortunes of the Empire, and that Rome in submitting to the Frank Kings could not carry over the allegiance of the Bulgarians. The Council eventually decided in favour of the supremacy of Constantinople, and the Papal Legates returned homewards much chagrined; they were waylaid and plundered *en route* by the Slave pirates of the Adriatic. The bishop sent to Bulgaria by the Pope also returned home again. The result of the Council was in fact to definitely attach Bulgaria to the Eastern Church (Lebeau, xiii, 267, &c.).

The Archbishop Theophylactus was sent with a following of priests into Bulgaria, several sees were founded, while a number of bishops apparently had no dioceses, and are referred to as "Episcopi regionarii." The Archbishop of Bulgaria was treated with special honour at Byzantium, and assigned the seat next the patriarch. And Boris' son Simeon was sent to the Imperial capital, where, according to Liutprand, he studied the works of Demosthenes and Aristotle, and acquired the soubriquet of "the Semi-Greek," and the Pope wrote and wrought in vain to try and bring back Boris and his people to their old allegiance to himself (Schafarik, *op. cit.* ii, 183, 184; Jiresek, 157, 158).

In 871 the famous Sviatopolk mounted the throne of Moravia. He laid a heavy hand on all his neighbours, and in 882 we find him fighting with a united body of Franks' and Bulgarians. The result of his several wars was to make him master of Western Pannonia and to make his borders continuous with those of Bulgaria (Schafarik, *op. cit.* ii, 405; Jiresek, 159). It was under his patronage that Methodios the Slave evangelist worked. The latter died in April 885. On his death his various scholars were dispersed and many of them sought shelter in Bulgaria where they were gladly welcomed by Boris, and renewed their good

work at his court. Among these fugitives there was named Gorazd, Klemens, Laurentios, Naum, Sava, Angelar, &c. (Jiresek, 160). We now meet with another contradiction between the eastern and western writers. One account says that Boris retired to a cloister and handed over the government to his son Vladimir, who reigned for four years, when his ill-doing caused his father to come out again from his retirement. He thereupon deposed Vladimir, had him beheaded, and gave the government to his younger son Simeon. This is reported in the legend of St. Clement, and in some epitomes written in Cyrillian characters (Schafarik, ii, 185, note 2). Sigebert also mentions this, and suggests that the young prince wished to reintroduce paganism (Pertz, vi, 241). The Byzantine authors know nothing of Vladimir, and they mention Simeon as ruling in 888; on the other hand, the Fulda annals distinctly refer to an embassy sent to Vladimir by Arnulf to renew the alliance against Sviatopolk and to prevent the Moravians from obtaining salt from Bulgaria. (Fulda annals sub an. 892; Jiresek, 160.) Having put Simeon on the throne, Boris once more returned to his cloister. He died on the 2nd of May, 907, and we must now turn to the history of his famous son the great Tzar Simeon, whose reign is the golden period of Bulgarian history. With his accession the peace between Byzantium and Bulgaria which had lasted so long came to an end. The cause of this strife was that a eunuch named Musicus, in the service of one of the principal officials named Zautzas, who had united with two Greeks named Stauracios and Cosmas, obtained the monopoly of exclusive trading with the Bulgarians, which traffic for their convenience was transferred from its ancient seat at Constantinople to Thessalonica. There, removed from supervision, they grievously oppressed the Bulgarian traders. Simeon having complained of this to the Emperor Leo the Wise, and obtained no redress, prepared for war (Stritter, ii, 576, 577; Lebeau, xiii, 340). The Roman armies were set in motion under Procopius, surnamed Crinites, but were speedily defeated in a battle which was fought in Macedonia. Their leaders were killed, while a number of Khazars, who had gone to the Emperor's help, having been captured, had their noses cut off, and were then contemptuously sent to Constantinople. The Emperor thereupon despatched the patrician Niketas Sclerus to the mouths of the Danube to arrange an alliance with the Turks, (*i.e.*, the Magyars, whom the Byzantines call Turks). He succeeded in arranging terms with Arpad and Kosan, or Kersan, the Magyar leaders (*id.* 578).

The Emperor now sent a fleet and the domestic legion to assail Bulgaria. This was in the third year of his reign (*i.e.*, in 888 and 889), and we are merely told that they penetrated as far

as Bulgaria. The expedition was apparently not very successful, and Leo sent an official to arrange about peace. Simeon imprisoned this envoy and prepared to resist. Meanwhile the Hungarian allies of the Greeks invaded Bulgaria and succeeded in retiring behind the Danube again with their booty. Simeon went to the rescue. He had fixed some chains to prevent the Greek vessels from drawing near and assisting, but these chains were broken and the Greeks passed through. The battle which followed was a fierce one. Simeon was badly defeated and many of his people were killed. This was near Silistria; the captives made by the Hungarians were redeemed by the Greeks, their allies, probably preferring to be paid for their services in gold rather than slaves. Simeon took refuge at Mundraga (?) while the enemy ravaged the land as far as Preslaf, when they again retired. At this time we are told the Turks (*i.e.*, the Magyars) were commanded by Liuntina, the son of Arpad (Stritter, ii, 578, 579). Roesler identifies this name as a corruption of Lewenta, which often occurs in later history. (*Romanische Studien*, 160, note 1). Simeon now made advances for peace to the Emperor, who thereupon withdrew his armies and fleet. Having secured this end, he followed the retiring Hungarians and inflicted defeat upon them (*id.* 580, 581). The Fulda annals which mention this, call the Hungarians Avars, and date the campaign in 895-6 (Pertz, i, 412). They forced easy terms upon the Emperor, in which the latter surrendered the captives he had made. Leo, as Lebeau says, in this war, gained the questionable glory of ransoming the Bulgarian prisoners from the Hungarians and handing them back again to Simeon without ransom (*op. cit.* xiii, 346). Nicephorus Phocas, the famous Imperial general, having died some time after, namely, in the year 891, Simeon siezed the opportunity and speedily found an excuse for war, on a charge that the Emperor had retained some of the prisoners, and he sent a demand for their restoration. He invaded Thrace and fought a bloody battle with the Greeks at Bulgarophygos, not far from Adrianople, in which the latter suffered a disastrous defeat (Stritter, 580, 581).

This terrible battle, in which the Greek army was practically annihilated, was fought in the year 892.

Having made peace with the Greeks, Simeon determined to crush the Hungarians, who, we are told, were at this time absent on a warlike expedition, meaning, doubtless, the attack they made on Sviatopulk, in conjunction with Arnulf in 892. Having made a league with the Pechenegs, they drove away the few Hungarians who had been left behind to guard their houses, and harried their wives and families. The Hungarians having returned and found their houses wasted, migrated into Pannonia.

After the battle of Bulgarophygos there was peace between the Bulgarians and the empire during the remaining years of the reign of Leo, who died in 911. During this peaceful interval Simeon performed the part of a patron of literature. It was a fertile epoch in its way. Bishop Constantine, Pope Gregory, John the Exarch, and the Monk Khrabr were busy, but the Slave historians complain that culture then meant Byzantine culture, and that we have no relics of poetry or other national literature at this epoch. From Bulgaria this Byzantine culture passed to Russia and Servia respectively (Jiresek, 164, 165). Bulgarian Christianity was at this time infected with various heresies, Arians and Manichees appear to have existed largely (*id.* 165). Simeon's capital was Great Preslaf, the Roman Marcianopolis, four hours' journey west of Sumen. There still remain its ruins about the village of Preslava, called Eski Stambul by the Turks, and now comprising but 200 Bulgarian and 100 Turkish houses. John the Exarch speaks in glowing terms of the Bulgarian capital and of its palace and churches, and contrasts the stone and diversely coloured wood of which its buildings were made, the pictures, the decorations in marble, copper, gold, and silver with the poor straw huts of his own country. He describes Simeon himself as sitting in his pearl-bedecked garments, with a chain made out of coins (*grivna cetava*) about his neck, with armlets on his arms, a purple girdle about his waist, and a golden sword by his side, and around him his bolyars decked with golden chains, girdles, and armlets (*id.* 165, 166). But the glory of Preslaf has long ago departed. Even when the Turkish geographer Haji Khalfa wrote, who died in 1658, there were only ruins to be described near Sumen, besides a great wall which is compared in its circuit with that of Constantinople (*id.*)

On the death of the Emperor Leo, Simeon sent envoys to his brother and successor, Alexander, to offer him his continued friendship. These envoys having been received with scant courtesy, Simeon prepared for war, when the death of Alexander postponed it. All this occurred in 912 (Stritter, *op. cit.* 582). Alexander was succeeded by his nephew Constantine Porphyrogenitus, then a boy of seven years old. Simeon, whose pride was doubtless galled by the treatment his envoys had received, continued his preparations. He marched with a large army to the gates of Constantinople, where frightened by the fortifications and the war machines upon them, and by the show of resistance, he withdrew to Hebdomos. Negotiations for peace were now commenced. The young Emperor's tutors having repaired to Blakhernas, where Simeon's sons were invited to sup with Constantine, the Greek patriarch Nicholas

was introduced to the Bulgarian King, put his stole over his head, and blessed him. Terms of peace were not, however, arranged, and the Bulgarians returned home without securing them (*id.* 583, 584). This year, Peter, the son of the Venetian Doge, Participatius the Seventh, on his return from Constantinople, where he had been well received, was arrested on the frontier of Croatia by Michel, Duke of Slavonia, who plundered him and handed him over to the Bulgarian King, from whom his father had to ransom him (Muratori Annal. v, 270, 271; Lebeau, xiii, 403). Constantine was a minor, and the Empire was governed by his mother Zoe. This was a good opportunity, and Simeon again marched southwards, invaded Thrace, and besieged Adrianople, which was surrendered to him by its governor, the Armenian Pancrutukas, who had been bribed. The city was recovered by Zoe from the Bulgarians, in the same manner (Stritter, *op. cit.* 584, 585). The Greeks now found a new ally. One John Bogas undertook to secure the alliance of the Pechenegs, who had recently driven out the Hungarians, if he was made a Patrician. He set out with a number of gifts and returned successful, taking with him hostages and a promise that the Pechenegs would cross the river when the empire was assailed by the Bulgarians (Stritter, *op. cit.* ii, 584). Having bought peace from the Saracens by the payment of a considerable tribute, the Empress removed the troops which were in the East to Europe, determined to crush the Bulgarians, and distributed *largess* freely among them. The army was officered by some of the most distinguished Greek officials, and before it set out it was assembled in a plain at the gates of the city, when the soldiers on their knees swore before the Arch-priest of the palace, who held a portion of the true cross in his hands, that they would conquer or die. The army advanced into Bulgaria, and encountered the enemy at the river Achelous, near Mesembria. At first the Bulgarians were defeated, but in the pursuit one of the Greek generals having dismounted to quench his thirst, and his horse having escaped, his people who saw it riderless, were panic stricken. The Bulgarians turned upon them, and utterly defeated them with great slaughter. There seems to have been considerable jealousy among the Greek commanders. The Admiral Romanus Lacapenos had been ordered to the Danube to transport the Pechenegs across the river, but he refused to co-operate, and the Pechenegs returned home in disgust; there was a suspicion that he and Leon Phocas, the general of the land army, were striving as rivals for the Imperial throne itself (Stritter, *op. cit.* 586-588; Lebeau, xiii, 411, 412). Leon Ducas, with the débris of his army, now fell back on Constantinople, and was followed by the Bulgarians. Another

fight took place at Catasyrtes, in which the Greeks fought bravely, and the result of which was that Simeon retired with his people from before the capital (Stritter, ii, 589). These struggles took place in 917.

The result was altogether a very serious one for the empire, as we shall show presently. Simeon appropriated the greater part of Macedonia, leaving to the Greeks little more than the seaboard, while the latter had the misfortune to see the throne of Byzantium made the plaything of two rivals, Leon Phocas and Romanus Lakapenos. For a while Simeon turned his steps elsewhere. We have seen how Muntimir became the ruler of Serbia. He apparently died about 890, leaving three sons, Pribislaf, Bran, and Stephen. Pribislaf succeeded him, but was driven away in the course of a year by his cousin Peter, the son of Goinik, whom we have named above. It was while the campaign on the Akhilous was in progress that the Prefect of Dyrrakhium, Leo Rhabdukhus, went to Paganía to concert some measures with Peter, who was then the ruler of the Serbians. Probably this meant an alliance against the Bulgarians. Moved by envy, Michael, Prince of the Zachlumi (*i.e.*, Michael Wyschewit, who reigned from 912-926 in Zachlumiá or Herzegovina) informed Simeon that the Roman Emperor had sent to arrange an alliance between Peter and the Hungarians, who were jointly to invade his borders. Furious at this news, Simeon sent an army under Theodore Sigritzes and Marmacén, which seized Peter and carried him off. Michael put Paul, the son of Bran, on the throne of Serbia (Stritter, *op. cit.* 600, 601), and he doubtless became more or less a dependent of the Bulgarians.

In 921 we again find Simeon making a raid upon the Imperial borders, and the next year apparently the Bulgarians advanced under a leader named Khagan (*i.e.*, the Khakan), by whom Simeon is probably meant, and another chief named Menik, and reached Manglaba. The Emperor sent a large army, together with a naval contingent under Alexis and Muzelaeus, against him. The Greeks encamped near the sea, and were surprised by the enemy, who suddenly appeared on the surrounding heights when they thought they were far away. The Imperial generals were panic stricken, and fled, and a terrible rout ensued, almost the whole army being either killed, drowned, or captured. The Bulgarians set fire to the Palace of the Fountains, a beautiful country house of the Emperors', and having pillaged the district up to the walls of the city, retired with a great booty (Stritter, *op. cit.* 590-2; Lebeau, xiii, 426, 427). The following June they again returned, and pillaged and destroyed the palace of Theodora the wife of Theophilus, outside the city walls. The Emperor now summoned his principal officers to a grand feast, when

under the influence of wine and excitement they promised great things. One of them, Sactices, who commanded the night guards, rashly set out with only his company at daybreak. He surprised the enemy's camp while the Bulgarians were scattered abroad pillaging, and killed the guards whom he found there; but the rest of them were speedily summoned, and slaughtered his band. He escaped, but was mortally wounded, and was buried in the church of St. Sepulchre. Simeon now again withdrew, but he had planned a more crushing campaign. He entered into an alliance with Fatlum, the Khalif of the Arabs of Kairvan (in Tunis) by which he undertook to attack Constantinople by land, while the Saracens assailed it by sea. The two were to divide the booty, and Simeon was to retain the city. The envoys of the Khalif were returning with those of Bulgaria to ratify the treaty, when they were seized in Calabria, and taken before the Emperor, who having imprisoned the Bulgarian envoys, released those of the Khalif, saying it was thus Romanus revenged himself on the enemies whom he esteemed. This superficial chivalry had the desired effect of conciliating the Khalif, and of causing him to renounce his alliance with the Bulgarians (Lebeau, *op. cit.* 430, 431; Jiresek, 168, 169).

Some time after—the year is uncertain, Jiresek dates it in 923, Lebeau in 925, and Stritter in 927—Simeon is found laying siege to Adrianople, where the patrician Leo commanded who had not failed to molest the Bulgarian borders. He bravely defended the town until famine pressed upon it, when the citizens surrendered it with their commander to the enemy. Simeon put him to death after subjecting him to torture, and having left a garrison there withdrew. This garrison fled on the approach of a Greek army which had marched to the rescue (Stritter, 593, 594; Lebeau, 432). The next year (924, 6, or 8) Simeon again marched through Thrace and Macedonia ravaging the country and destroying even the trees in his way. Having arrived before the gate of Blakernas he demanded a conference to settle matters with the empire. Romanus sent the patriarch Nicholas and other grandees to the Bulgarian camp, but Simeon insisted on a *tête-à-tête* with the Emperor himself, whose equity and prudence he declared he knew well. Romanus was very anxious for peace. He had the imperial galley rowed into a shallow creek, and having enclosed a space round it with palisades, offered to meet his opponent there. The latter, or rather probably some of his wild subjects whom he doubtless found it very difficult to control, set fire to a famous church dedicated to the Virgin. Meanwhile Romanus repaired to the Church of our Lady of Blakernas where he gave himself up to prayer, and removing

a famous mantle which was reputed to have belonged to the Virgin, he put it on as a cuirass under his imperial robes and then repaired to the rendezvous. Thither Simeon also went, with an immense cavalcade, their arms glistening with gold and silver, and singing the praise of their ruler, the spectacle being watched by a great crowd on the walls of the capital itself. The Emperor awaited the arrival of Simeon, whose people inspected the vessel to prevent a surprise. Romanus is said to have spoken his friend a homily on the evils of blood-shedding, which is reported at some length by the chroniclers, and to have told him that if his motive was booty that he would willingly pay a considerable black mail to secure peace (Stritter, *op. cit.* ii, 595-598; Lebeau, xiii, 433-436). Peace was at length agreed upon, and Simeon received some lordly presents from the Emperor. As the terms were being settled two eagles are said to have approached one another in the air and then to have parted company, one going towards the city and the others towards Thrace. This was accepted as an omen that the peace would not be lasting. It, however, lasted longer than the augurs probably suspected. Simeon turned his arms elsewhere. I have described how Paul, the son of Bran, acquired the throne of Serbia as his protégé. To check-mate this the Emperor Romanus, who claimed suzerain rights over Serbia, and who had given an asylum to the son of Pribislaw named Zacharias, sent him to try and secure the throne, but he was captured and sent in chains to the Bulgarians (Stritter, *op. cit.* 601). Three years later Paul, having proved unfaithful to his Bulgarian patron, sent Zacharias, who drove Paul away and occupied the principality. Once on the throne he sided with his former protector the Emperor, and drew upon himself the vengeance of Simeon, who sent an army under Marmaes and Theodore Sigrizses. They were defeated, and their heads and weapons were sent as trophies to the Roman Emperor. This happened before the Romans and Bulgarians had made peace. To revenge the mishap Simeon collected a fresh armament and sent it under Chenus, Hemnek, and Etzboklia. Zacharias now deemed it prudent to retire to Croatia, while the Bulgarians assembled the Zupans and ordered them to come together and do homage to Zeeslab, whom Simeon had appointed their ruler. They were then seized and carried off in chains to Bulgaria. The Bulgarians entered their land and laid it waste. They carried off all the inhabitants save those who found refuge in Croatia, and the country for several years was left vacant. Simeon now sent an army under Alogobotur against the Croatians, by whom, however, it was defeated, and apparently annihilated (*id.* 602). This blow seems to have been too much for the great Tzar, for he died on the 27th of May, 927. His death

was a most serious blow to the Southern Slaves. If he had lived, or if he had been succeeded by princes of the same martial character, it is very probable that a great Slave state reaching from the Adriatic to the Black Sea, which would have been a barrier to the Turks, might have been formed south of the Danube. As it was, the empire he virtually conquered broke to pieces and became disintegrated. The Tzar Simeon was the Alexander of Bulgarian history. We do not propose to carry the story further. We will now bring together such facts as we can collect about the separate sections of Bulgarian Slaves. As we have seen, the Bulgarians on entering Moesia conquered the country as far as the frontier of the Avars, which Schafarik explains as the junction of the Save, Theiss, and Danube, and thence concludes, with reason, that among the Slavic tribes they conquered and incorporated were the so-called Eastern Obodriti, the Branitshani, Kuchani, Timociani, and probably also the Severani. Hincmar tells us that in 866 (probably it ought to be 861) on the occasion of Michael Boris becoming a Christian, ten *gaus* rebelled against him. These *gaus* Schafarik suggests occupied Bulgaria proper from the Timok to the sea. Of their names we can only recover two or three, which occur in the Frank annals, and which were situated in the north-west of Bulgaria, namely, the eastern section of the Obodriti, the Guduscani or Kuchani, and the Timociani. I have already described the Eastern Obodriti in a previous paper of this series, and would here only add that they are mentioned by the often quoted Bavarian geographer, who calls them Osterabtrezi, and who tells they possessed more than one hundred towns (Schafarik, ii, 208, note 3), proving what a powerful stock they were. Some of the towns in the district still preserve traces of their early names, as Bacs called Pagatzi by Kinnamos in 1163; Zemlin, at the junction of the Save and Danube called Zeugmin by Kinnamos, and Zeugnimon by Niketas Khoniatas, Sombor, etc. The Guduscani or Kuchani and the Timociani we have also considered in the former paper. The so-called Bulgarian Morava has for its feeding streams the Wrana, the Toplitza, the Taren, and the Tempeshka; the Serbian Morava is fed by the Ibar. The country between the Ibar and the eastern branch of the Morava, and the district watered by the whole river after the junction of the two head streams, the Serbian and Bulgarian Morava, which is now entirely occupied by Serbs, belonged until the ninth and tenth century to the Bulgarians, and only became Serbian in the twelfth century when the great Zupan Stephen Nemanja conquered it and secured the important towns of Prishtina, Nish, &c. (Schafarik, ii, 212). The dialect is still somewhat sophisticated there. It is probable, says Schafarik, that the part

of this district bounded by the Timok, the Danube, and the Morava was secured by the Bulgarians on their conquest of Moesia in 678, while the rest of the district between the Serbian and Bulgarian Morava, and beyond the Morava to the Drina, was only added to Bulgaria by Michael Boris. Dardania (*i.e.*, the district on the Binch Morava) belonged to Bulgaria in 869 (*op. cit.* 212). The whole district as far as the Drave was called Moravia, or rather, to distinguish it from Moravia in Northern Hungary, Lower Moravia. At the synod held at Constantinople in 878, an archbishop signed himself *Ἀγαθὸν Μωραβαν*, together with two other Bulgarian bishops, Gabriel of Okhrida, and Simeon of Debeltus. He was probably the Agathon sent as an envoy to the Franks by the Emperor Basil in 873.

The Bavarian geographer, after describing Bohemia and Marharii (*i.e.*, the Northern Moravia), goes on to speak as follows: "Vulgarii regio est immensa et populus multus, habent civitates V., eo quod multitudo magna ex eis sit et non sit eis opus civitates habere. Est populus quem vocant Marehanos" (*i.e.*, no doubt the southern or Nether Moravia); "ipsi habent civitates xxx." Then follow the Osterabtozezi. In Serbian writings of the thirteenth and fourteenth century, Nether Moravia occurs frequently, as in the life of St. Simeon, written by St. Sawa in 1208, where it is called Pomoravya. In 1382 it is styled Morave (Schafarik, ii, 214). At the sources of the Binch Morava is a town Morava, called Morowisdos by Kinnamos, in 1018, in the following passage cited by Stritter: "venerunt et legati Bulgarorum e Pelagonia (Polog) et Morobisto (now Morava) et Lipenio (now Liplyan) ad imperatorem et urbes ei dedunt" (Stritter, ii, 641). In 1342 we read of a "loco Moravo ab indigenis nuncupato," as far as which the Serbian King Dushan conducted his sister Helena (*id.* 861, Schafarik, ii, 215). Kedrenus, speaking of the Bulgarian, Peter Delan, in 1040, says, "Usque ad Morabum et Belegrados pervenit, qua sunt castella Pannoniae ad Istrum" (Stritter, ii, 650.) St. Sawa founded a new bishopric in Moravia in 1224. This see was probably situated on the river Morawiza, where the monastery of Morawce, in the modern Rudnish, is still to be found.

Several distinct districts are mentioned in this southern Moravia, *inter alios* Nischawa (1153), called Nikawa by Kinnamos, connoting no doubt the country round Nisch, and Dendra mentioned also by Kinnamos in 1156, doubtless the Slavic Dubrava, which is mentioned as a gau in 1381 (Schafarik, ii, 215). Of the towns in the district the most important is Belgrade, the Singidunum of the ancients, where in 885, according to the life of St. Clement, lived the Bulgarian chief Boritakan (*id.*). Khram, a stronghold on the Danube,

mentioned in 1123 by Niketas Khoniata, now Ram. Rawanitz, mentioned in 1096, 1172, and 1189, and called Rabnel by Ausbert, Arnold, &c., and said to be situated "in Silva Bulgarica." Smolinyec, a place near Branitshevo, called Smeles in 1154, by Kinnamos. Zuetshan, called Sfentzanion by Anna Comnena in 1081, and Swetzanion and Sfeiamon by Khalkokondylas. It was on the borders of Bulgaria and Serbia. Liplyan, very probably the ancient Ulpiana, called Lipenion in 1018, by Kedrenos, Lipainion by Theophanes and Anna Comnena, and Liplyan by St. Sawa, under which name it still exists. Prishtina called Prisdiana in 1073, by Skylitzes and Theophylactus. It is curious that no name of any gau in Bulgaria proper is known.

The well known Dobruja or Dobritch, on the right bank of the Danube, at its outfall is first mentioned by Khalkokondylas, in 1444. It originated from its possessor Dobricei, who lived about 1388 (Schafarik, ii, 216), but we are told a place called Dobritsh, in the Bulgarian Moravia, is mentioned in the chronicle of Archbishop Daniel in 1330.

Of the Bulgarian rivers we find the Tytscha most frequently named in the chronicles. It is called the Tunza by Theophanes in 764, the Tumtza by Kedrenos, and the Tytscha in the MS. of the Monk Tudor at Dok. It is probably to be identified with the Ditzina, named by Constantine, in 949, the Bitzina of Anna Comnena. Under these various names it seems likely that the Dewna, which falls into the sea below Varna, is meant.

The most important Bulgarian towns were Preslaf called Presthlawa, Preshlawon, Persthlawa, Persthlawa, Parasthlawa, by the Byzantine writers; Pereyaslawiz, by Nestor and Praslaf in a deed of the Tzar Assan in 1186. It was the ancient Mar-
kianopolis, and is now in ruins. It was the capital of the Bulgarian kings until the subjection of Bulgaria in 971. Shumen, the Turkish Shumla, is identified by Schafarik with the so-called Aula Crumi, or Palace of Krum (mentioned in 802-815), and with the Buleuterion and Symeonis vertex of Anna Comnena. Provat, near Prislaf, is mentioned in 1186 by George Akropolit. Pleskof, called Pliskova, Pliskuva by the Byzantine authors, Leo the Deacon, Kedrenos, and Zonaras, in the year 971, was situated near Preslaf, but its site is not known. Varna, so well known to us, is mentioned as early as 678 by the Byzantine authors ("Warna urbs, Odesso vicina," says Theophanes.) Ditschin on the Danube is probably the Dinia or Dinogetia of Leo the Deacon. Kiyewez, also on the Danube, named by Nestor (967-971), is now unknown. Dristor, Derstor, Destor, called Drestwin by the Russian annalists, Darstero by Gundulit, and Dristra, in

889, by Leo the Grammarian, the ancient Dorostolas, is called Silistria by the Turks. Rakhowa (Bulgarian Rakhuawa, Reachuwa, Reachuwitza, Oryechowa, Oryekhowitza) is the name of two towns, one on the Danube, the other near Tirnovo, mentioned, in 1306, by Pachymeres. B'dyn, B'din, called Bydinum by Theophylactos in 1071, Bidini by Kedrenos, B'dyn in a deed of the Tzar Assan of the year 1186, and B'din by Archbishop Daniel, is the well known Widin, perhaps also the Widez, Widizof of the Russian annals. Lowez is mentioned in 1049 by the Byzantines under the name Lowitzon. Demnitzikos, mentioned as situated on the Danube in 1148, by Kinnamos, is not now known. Tirnof or Tirnovo, mentioned as early as 1185 by the Byzantine authors, was the capital of Bulgaria from the year 1180. Sredez, called Serdika by Theophanes in 809, Triaditza by Leo the Deacon and others in 987, Stralitzia by Ausbert and William of Tyre, is the modern Sophia called Sardika, and Serdika by the ancients. Boron, mentioned by Kedrenos in 1015, was probably on the Boyan near Sredez (Schafarik, ii, 217, 218).

Having examined the topography of the Bulgarian land, we will now conclude with a notice of the idiosyncracies of the Bulgarians, which are traceable to their partially non-Aryan descent.

Our story began with the conquest of the Slaves of Mesia, who, like their brothers elsewhere, were a settled race of agriculturists, by the warlike and nomadic Bulgars, who were of Hunnic descent. The Slaves, apparently, have a singular facility for amalgamating with their neighbours, and swallowing them up. Thus we find the Bulgars speedily adopting the customs and the language of the conquered Slaves, and becoming Slaves, in fact, in all but two important particulars, one was their name. They retained their old denomination and continued to be styled Bl'gare, in the singular Bl'garin, by the Serbs Bugare, and by the Russians Bolgare. The other feature in which they remained somewhat apart from the other Slaves was in their physique. In a number of photographs of the upper strata of Bulgarian society, some time ago shown me by my good friend, Mr. Arthur Evans, of Ragusa, the Ugrian or Turanian type of feature was very marked. It was this class which probably was alone of Ugrian descent, the lower strata of the population remaining largely Slavic. The amalgamation of Ugrians and Slaves to form the present Bulgarian nation took place gradually. Many of the early chiefs bore names clearly of an Asiatic type, as Kubratas or Khrobatus, Batbais, Kotragus, Alticeus, Alzeko, Kuber or Kuwer, Asparukh or Isperek (perhaps a Persian name), Terbelis, Komersius or Komersius, Teletzes, Sabinus, Paganus, or Bayanus

Umarus, Toktus, Tzericus, Kardamus, Krumus, Mortagon Presia, Boris, Almus (compare the Hungarian Bors and Almus), Ahmed, Talib, Mumin, Boilas Tzigatus, Marmaes, Kninus, Izboklia, Alogobotur, Konartikinus, Bulias Tarkanus, Kaluterkanus, Krakras, Elemagus, Kaukanus, Boritakan, Echatzis, Dobetas, Billa, Boksu, Heten, Organa, &c. (Schafarik, ii, 166, 167). Examine, again, the names of several districts occupied by the Bulgarians of the Danube, as Bular, Kutminziwi, Kotokium, &c. (*id.*), and some words in use among them, as Ropat, a prayer house (compare the Arabic Ribat or Robat) Boilades, nobles (compare the Avar Beled), Aul, the throne or seat of the prince (compare the Kirghiz aul, meaning the same thing, in Magyar ol=stabulum) welermit, silk, &c. (Schafarik, ii, 167). We will now collect such other Eastern characteristics as chroniclers have preserved.

The Bulgarians were essentially a warlike race. Their frontiers were protected by many fortified forts, and no one, whether a free man or a slave, dared to leave the country under penalty of a severe punishment, and if any one escaped, the frontier guards paid the penalty with their lives. According to the reports of the Arabs, their land was surrounded with a thorn hedge, with wooden gates. The several villages, however, were not so surrounded. As a standard they used a horse's tail, like the Turkish bunsuk, and the Mongol tugh or tuk. They only fought on lucky days. Before setting out a trusty officer was sent round to inspect the arms and horses, and where they were found defective, the owners were punished with death. Before their battles they performed certain incantations, &c. ("incantationes et ioca et carmina et nonnulla auguria").

Those who fled from battle, or were disobedient to orders, were cruelly punished. According to the report of the Arab Masudi, the Bulgarians used neither gold nor silver money, but cattle and sheep were their units of value in trading. In times of peace they were accustomed to sell Slave boys and girls as slaves at Constantinople. The ancient Bulgarian polity was founded on an aristocratic basis. The chief was styled Khan, and was assisted by a council of six nobles, who were styled Boilades or Boliades, whence some, says Jiresek, derived the Slav title of Bolyars or Bolerin (nobles). This title is used among the Russians and Bulgars, and has passed from them to the Rumans and Albanians. According to the court etiquette the Byzantine envoys first inquired after the health of the Khan, his wife, and children. Then after that of the Bulias Tarkhan, of the Konartikin, and of the six great Bolyars, then after the other nobles, and lastly after that of the whole people. Of the noble families we have recorded the names of four in the frag-

ment already quoted, namely, those of Yermi, Ugain, Ukil or Vokel, Dulo. Many of the nobles' names end in *bul*, whence the old Slave *bul* (boliar) is perhaps derived.

Mohammedanism, which had made considerable progress in Great Bulgaria on the Volga, had also planted itself in the Danubian Bulgaria. In a document of Pope Nicholas dated in 866, he speaks of Mohammedan books in use among the Bulgars ("libri profani, quos a Saracenis vos abstulisse ac apud vos habere perhibetis"). The Pope ordered them to be burnt. Mohammedans in Bulgaria are also mentioned in a Bulgarian Nomocanon of the thirteenth century, in which Mohammed is called Bochnit.

The Bulgarian language subsisted for a considerable period apart from the Slavic; thus in the life of Saint Demetrius, written in the eighth century, we read that the Bulgarian king sought among his councillors for men who could speak Greek and Slavic (Schafarik, *op. cit.* ii, 168; Jiresek, 134, 135), while among the writers of the eighth century Bulgarian and Slavic divisions of troops are clearly discriminated (Jiresek, 133-135.)

The rites performed before his battles by Krum have their counterparts in the later history of the Mongols. We are told how he "more gentis sacrificio instructo (profano et vere daemoniaco) homines ac pecora plura immolavit, tinctisque ad maris litus pedibus ac aqua lotus, lustratoque exercitu, faustis suorum vocibus omnibusque exceptus, per medium pellicum gregem iis venerationis ergo procumbentibus ac laudantibus processit" (Stritter, ii, 554).

The early Bulgarians were polygamists, at least some of them had two wives. As a dowry they gave their wives gold and silver, cattle and horses, &c. The princes possessed harems. In regard to their costume we learn that men and women both wore wide trousers, and women as among the Mohammedans veiled their faces. The men shaved the head smooth and wrapped it in a turban ("ligatura lintei, quam in capite gestatis") which was not removed during worship. According to Suidas the dress of the Bulgarians was like that of the Avars (*id.* 132). They ate flesh, but only of such animals as they deemed clean, and from which blood had flowed when they were killed. When any one was ill they had recourse to superstitious cures; ribbons were hung from his neck, or small stones were administered as medicine. The bodies of their chiefs, according to the report of the Arabs, were burnt or buried in tumuli, in which their wives and servants were also enclosed and suffocated. Their justice was of a very crude type. If a man was caught committing robbery and refused to confess, the judge beat him on the head with a club or ran iron into his legs, as long as he remained obdurate. The steal-

ing of cattle and slaves was severely punished, and executions were very frequent. Nobles who rebelled not only lost their lives and property, but their children and dependents were similarly punished. The etiquette of the court had an Asiatic character. The prince took his meals out of a separate dish, not even his wife shared it. The grandees ate at some distance from the prince, sitting on stools or kneeling on the ground. They used their enemies' skulls as drinking cups. The left was the side of honour. On the conclusion of a contract the oath was sworn over a bare sword while dogs were meanwhile cut in pieces, a practise still well known in Siberia.

We have now completed our survey of the Bulgarians and shown how close akin they are to the Serbs and Croats, all having an aristocracy or upper class of Ugrian descent which is closely connected in blood with the Hungarians. In the next paper of this series we shall deal with the Slaves of Macedonia, Greece, and Southern Hungary.

MAY 24TH, 1881.

Major-General A. PITT RIVERS, F.R.S., *President, in the Chair.*

The Minutes of the last meeting were read and confirmed.

The following list of presents was read, and the thanks of the meeting voted to the respective donors:—

FOR THE LIBRARY.

- From Lieut.-Colonel R. G. WOODTHORPE, R.E.—Report of the Exploration of the Angami Naga Country. By Dr. R. Brown.
 ——— Rough notes on the Angami Nagas and their Language. By Captain John Butler, B.S.C.
 From J. W. POWELL, Esq.—Abstract of Transactions of the Anthropological Society of Washington, D.C.
 From the GERMAN ANTHROPOLOGICAL SOCIETY.—Archiv für Anthropologie. Band. XIII, 3.
 From the SPANISH ANTHROPOLOGICAL SOCIETY.—Antropologico, No. 5.
 From the BERLIN ANTHROPOLOGICAL SOCIETY.—Zeitschrift für Ethnologie, 1881, Hefte 1, 2.
 From the SOCIETY.—Proceedings of the Asiatic Society of Bengal, March, 1881.

From the SOCIETY.—Journal of the Society of Arts, Nos. 1486, 1487.
— Mittheilungen der K.K. Geographischen Gesellschaft in Wien, 1880.

From the INSTITUTION.—Journal of the Royal United Service Institution, No. 109.

From the ASSOCIATION.—Journal of the Royal Historical and Archæological Association of Ireland, July, 1880.

From the EDITOR.—"Nature," Nos. 602, 603.

— Revue Scientifique, Tom. XXVII, Nos. 20, 21.

— Correspondenz-Blatt, No. 5.

The following paper was read by the author, and illustrated by a large collection of objects of ethnological interest:—

On the ANDAMANESE and NICOBARESE OBJECTS presented to Maj.-Gen. PITT RIVERS, F.R.S. By E. H. MAN, Esq., F.R.G.S. M.R.A.S., M.A.I.

[WITH PLATES XXIII TO XXVI.]

It has been with considerable reluctance that I have accepted the invitation of General Pitt Rivers to describe the Andamanese and Nicobarese objects added by me last year to my previous collection, sent in 1877, for I have but little information to offer beyond what I then gave, and which formed the subject of some interesting remarks from General Pitt Rivers in January, 1878. At his suggestion I propose this evening supplementing the few observations I have to make on the objects now before you, by giving you a faint outline of a monograph which I have in course of preparation on various points of ethnological interest connected with the Andamanese, and which I hope ere long, leisure permitting, to have the honour of presenting to this Institute.

It is now very generally known that, prior to the establishment of our present penal settlement at Port Blair in 1858, and even for some time after, our knowledge of these aborigines—so frequently and incorrectly called Mincopies—was limited to that of their being negritos in almost the lowest state of barbarism, while many ideas which were erroneous and unfounded were entertained regarding them, as, for example, that they were addicted to cannibalism, and that their marital relations were extremely lax.

The fact of my having passed eleven years at the Andamans, during four¹ of which I had charge of the homes established by

Viz., from July, 1875, to July, 1879.

Government for the purpose of reclaiming these tribes, as far as possible, from their savage state, is the chief ground on which I would claim your attention this evening; and as I succeeded in acquiring a knowledge of the South Andaman dialect, and had a more or less close acquaintance with members of no fewer than seven out of the eight tribes of Great Andaman, I have naturally enjoyed great facilities for obtaining information,—greater, indeed, by far than fell to the lot of any other European, or at least of any who have hitherto written on this subject.

In the remarks to which I have alluded, General Pitt Rivers pointed out the characteristics of the various objects comprised in my first collection, a large number of which were admirably illustrated in the lithographed plates which accompanied the report in the Institute's journal (*vide* Vol. vii, Plates xii–xvi). Beyond correcting some misapprehensions which appear to exist on certain points, and replying to the questions contained in General Rivers' paper, it is not my purpose this evening to make any reference to the objects already described, but to give you some information respecting the additions which I have lately made to the collection, and then to say a few words about the people themselves.

For convenience' sake I will make my comments, as far as possible, in accordance with the sequence of the observations calling for remark in the paper, and in the discussion which ensued thereon.

I. Allusion was made¹ to a belief once current that the Andamanese "broil their meat over a kind of grid made of bamboos." This, as is now well known to us at the Andamans, is incorrect. The idea is perhaps traceable to the practice, almost universal among them, of placing, at a height of two feet or so above their hut-fire, a sort of grating of twigs or bamboo, sufficiently large to hold a small supply of provisions, which are thus preserved, by means of the smoke, from the attacks of animals and insects. In his recent work on Anthropology (page 265), Dr. Tylor mentions the existence of a similar custom among certain Brazilian tribes.

While on this subject, I would briefly describe a method of cooking food, which, as far as I know, is practised only by the Andamanese. I have here a bamboo vessel—called *gōb(da)*²—

¹ *Vide* "Journal of the Anthropological Institute," vol. vii, p. 434.

² For the list of symbols adopted for denoting the sounds in this language as well as that of the Nicobarese, see Appendix II at the end of this paper. I would take this opportunity of acknowledging the valuable assistance so kindly afforded me by Mr. A. J. Ellis, F.R.S., in determining my present list of symbols. All differences occurring between this and my previous system of representing the sounds of these languages have been made in deference to his advice.

This termination *da* is common to most substantives adjectives, and many

which serves, first, to contain the food they may require on a journey, and, subsequently, as a cooking pot when the time comes for its consumption. The size of the vessel is usually determined by the length of a single cell in the bamboo. Previous to being used it is washed, cleansed, and dried over a fire. Meat or other food in an uncooked, or partially cooked state, is then packed into it, and a leaf is secured over the mouth. When the food is required the vessel is placed on a fire, and constantly turned, so that all parts are equally burned; it is afterwards split open, and the contents being thoroughly cooked, are disposed of among the assembled epicures. From this it will of course be understood that this bamboo vessel is only capable of being used on a single occasion. The *gob* also serves as a water vessel.

II. As regards the question¹ of the stature and size of the Andamanese, I would mention that the result of the measurement of 48 male and 41 female adults showed that the former average 4 feet 10 $\frac{3}{4}$ inches in height, and 98 $\frac{1}{2}$ lbs. in weight, and the latter 4 feet 7 $\frac{1}{2}$ inches in height, and 93 $\frac{1}{4}$ lbs. in weight.

III. After a close examination of several shaven scalps I am satisfied that the hair² is uniformly distributed, and does not grow in separate tufts with bare intervals. This result was anticipated by General Pitt Rivers and Professor Flower, as shown by the remarks they made on the occasion above mentioned.

IV. Bow-traps³ are quite unknown to the Andamanese, as are also the blow-pipe,⁴ wamera,⁵ or throwing stick, and the boomerang.⁶ The last two, indeed, could not be used, except along the shore, seeing that the whole country is covered with more or less dense jungle. In respect to the blow-pipe I would remark that, as the principal feature in this weapon is the poison in the dart, without which the projectile would be comparatively harmless, it is easy to understand why it never occurred to them to devise such a weapon, seeing they are ignorant of the use and even of the existence of poison, except perhaps in the fangs of venomous reptiles, and in the *Nux Vomica* which is found in their jungles.

adverbs. It can only be used when these words occur alone or at the end of a sentence, and I am disposed to trace its origin to the defective or partially obsolete verb *ēdāke*, to be. Its employment being optional, it is placed within

brackets; example: Where? ¹tekarichā²(da)? That man is good, ³ōl ¹abūla ²bēringa(da).

¹ Page 438.

² *Ibid.*

³ Page 441.

⁴ Page 442.

⁵ Page 441

⁶ Page 445.

V. The Little Andaman bow¹ is not made of *bamboo*, as will be observed on examination, but of a hard wood called by the Andamanese *lōkoma(da)*, the botanical name of which I am at present unable to furnish.

VI. The harpoon-arrow²—*ēla(da)*—is used *only* on land, and chiefly in pig-hunting. The harpoon-spear—*kowai'a lōko dūtnga(da)*—is used only on the water, in hunting turtles, dugongs, porpoises, skates, and other large fish.

VII. With regard to the question of the material³ used in former times by the Andamanese in the construction of their adze-blades and arrow-heads, they persist in stating that when iron suitable for such purposes was not procurable from wrecked vessels, their ancestors used to make their adze-blades of *Pinna* shells, and their arrow-heads either of the same material or preferably of the *Perna ephippium*. The latter shell, indeed, bears the name of *ēla(da)* which is the designation by which the pig-arrow is still known. In the case of the adze, however, they assert that recourse to such an expedient as the use of shell was comparatively rare, as iron sufficient for making these tools was generally procurable. They account for the stone celts discovered in kitchen-middens⁴ by stating they must be either refuse pieces of stone broken in forming shaving and tattooing chips, or portions of cooking stones—*lā(da)*—which, while in use, split in such a way as somewhat to resemble a celt. This, however, is only negative evidence, and further researches by competent authorities may not improbably confirm the belief held by some that the statements of the present inhabitants on this point must be disregarded in favour of the opinion expressed by the late Dr. Stoliczka.

VIII. For the purpose of boring⁵ small holes in wood they use their iron-tipped arrow—*tōl-bōd(da)*⁶—or turtle harpoon—*kowai'a*

¹ Page 441.

² *Ibid.*

³ Page 443.

⁴ "The fourth kind of articles found in the Andamanese shell-mounds, and worthy of notice, are those of stone implements. . . . Mr. R— extracted among others on the spot, a beautiful polished celt of the usual trapezoid form, about 2½ inches long, laterally compressed, narrower on one end, broader on the other, and with a sharp edge ground down from either side. This specimen was indistinguishable from any of the European, or Indian celts of the so-called neolithic period. . . . Beside this, a small, but typical, arrow-head was found. All these materials are of a tertiary sandstone, which is almost the only rock to be met with in this neighbourhood of the harbour. These celts, &c., clearly indicate that they were used by the Andamanese as weapons of the chase, or as implements in opening the shells, &c. They could, however, hardly be regarded as sufficient for killing the Andamanese pig, as already pointed out by Mr. Theobald, a few years ago."—"Note on the Kjökkenmöddings of the Andaman Islands," by the late Dr. F. Stoliczka, v. "Proceedings. As. Soc. of Bengal, January, 1870.)

⁵ Page 443.

⁶ *Ibid.* vol. vii, plate xiv.

(*da*); larger holes are made by means of the adze—*wōlo(da)*,¹ which is also employed for digging graves. For up-rooting yams and other edible roots a long pointed stick, called *lākā(da)* (Plate XXIII, fig. 2), is used. This tool reminds one of a similar implement in use among the Australians, a sketch of which is given at p. 216 of Dr. Tylor's "Anthropology."

IX. The Andamanese are unable to produce fire,² and there is no tradition pointing to the belief that their ancestors were their superiors in this respect. As they live in the vicinity of two islands, one of which contains an extinct, and the other an active volcano, it seems not unreasonable to assume that their knowledge of fire was first derived from this source.

X. Nothing of the nature of the fish-hook³ is made by them, and, although an ample supply might be obtained by requisitioning us, they never apply for any, for the very good reason that they are able to catch fish far more readily by shooting, spearing, and netting, than the most skilful fisherman by hook and line. The only implement of a hooked nature in use among them is the crook-like pole (Plate XXIII, fig. 1), called *ngātanga (da)*, employed in gathering fruit, more especially jack fruit (*Artocarpus chaplasha*).

XI. The torches⁴ used by the Andamanese consist of resin covered with leaves of the *Crinum lorifolium*, whereas those of the Nicobarese are merely dried cocoanut leaves tied together.

XII. As regards the two varieties of Andamanese canoes,⁵ there can no longer be any doubt that the outrigger is not the modern form, but the ancient, as suggested by General Pitt Rivers in his paper. Their paddles are not made by women, as has been asserted, nor are they of any prescribed size, this being dependent on the will of the maker, or the material at his disposal. I cannot agree with Dr. Mouat in the extravagant eulogy he bestows on the skill of the Andamanese boat-builders. A glance at the models of an Andamanese⁶ and a Nicobarese canoe (Plate XXIV), will convey some idea of the clumsy construction and inferior workmanship of the former, and of the many excellent qualities possessed by the latter. I can find nothing, even in the way of tradition, to support the belief, still held by some, that the Andamanese at any period employed fire, as do the Nicobarese, to assist in the work of forming a canoe; but the most striking error I have met with is the alleged existence of so called oven-trees. As during my long acquaintance with these

¹ *Vide* vol. vii, plate xiii.

² Page 443.

³ Page 444.

⁴ Page 447.

⁵ *Ibid.*

⁶ *Vide* vol. vii, plate xii, fig. 69.

savages, and of their habits, I had never observed anything to account for such a statement, I made careful enquiry, the result of which has led me to suppose that the fable, if I may so call it, originated in the practice they frequently adopt, when overtaken by a storm, of sheltering themselves in the spaces formed by the large buttress roots of trees of the *Ficus* species which are so commonly met with in their jungles. In these shelters all that they require to protect them from the inconveniences occasioned by a heavy storm are a light leaf covering, and a fire which, from being placed in the recess formed by the junction of the roots, may have conveyed the impression to some casual observer that the tree had been purposely charred and hollowed out to form an oven. A fancy sketch of a pig being roasted in one of these imaginary oven-trees, which appears in a well known work, was once shown by me to a party of Andamanese who were vastly entertained by the inventive skill displayed by the artist on this subject.¹

XIII. On no occasion have I observed an Andamanese using the skull of a deceased relative as a receptacle,² and I have, moreover, been assured by them that such has never been the practice. The opinion expressed by Mr. St. John on this point may possibly have originated in the accidental insertion of some small object, as, for instance, a portion of the shell (*Dentalium octogonum*) with which these unsavoury souvenirs of the dear departed are usually decorated, as will be seen in the specimen now exhibited (Plate XXIII, fig. 7).

XIV. The pig is by no means considered unclean,³ and the sole reason given for not using the bones of this animal in ornamental necklaces is that they are large and coarse, and ample material for all their requirements in this line are found in those of iguanas, turtles, and paradoxuri.

XV. I have no hesitation in denying that the Andamanese ever make "holes in the sand for purposes of habitation."⁴ Their children sometimes amuse themselves by playing at mock-burials in the sand, and as these, in imitation of the original, generally take place near some boulder or conspicuous tree, it has occurred to me that the "holes scooped out in the sand beneath an overhanging rock large enough to contain a single person," which Dr. Dobson observed near Port Mouat, were merely the traces of such games, unless, indeed, they were the temporary resting-places of some ticket-of-leave fishermen, or runaway convicts.

¹ At the request of General Pitt Rivers, a letter which he has addressed to me on this subject is appended to this paper (Appendix I, p. 230).

² Page 449.

³ *Ibid.*

⁴ *Ibid.*

XVI. As doubts were expressed¹ whether the iron objects sent from the Nicobars had been manufactured there, I would affirm positively that such is the case.

The following, I have reason to believe, is a complete list of these objects, specimens of which are before you:—

- | | |
|------------------------------------|---|
| 1. Shanen ² Mong-hēang. | 5. Miān ³ Mōm-ân-ya. |
| 2. " Hoplōap. | 6. " lōe. |
| 3. " Kopatōn. | 7. " fōan. |
| 4. " Yanō-ma. | 8. " tanain (or kentem at Katchall Island). |
-
- | | |
|-------------------------|---|
| 9. Hinweñh (or hinlāk). | 11. The arrow-heads of the cross-bow (Fōin) and children's bow (Bel). |
| 10. Kan-shōka. | 12. Homyāh-ta. |

Of these the most remarkable is the *Homyāh-ta*,⁴ for, although resembling a spear, it is not a weapon, but an ornament which the natives of Chowra alone venture to construct in consequence of a superstitious belief held regarding it. These *homyāh-ta* are met with in almost every village excepting those of the southern⁵ group, and are not, as I was once led to believe, badges of honour or authority, but, being costly, only the wealthy members of the community can afford themselves the luxury of possessing more than one or two. Inferior imitations are sometimes brought from the Straits Settlements by the Malay traders, who find them profitable mediums for barter, as they do also certain spears similar to the *Hoplōap* (called *Shanen Kaling*⁶ i.e., foreign spear).

1. The *Shanen Mong-hēang* is used for spearing pigs;
2. The *Shanen Hoplōap* is used for the same purpose, and also sometimes for sharks and crocodiles;
3. The *Shanen Kopatōn* (Plate XXVI, fig. 8); and
4. The *Shanen⁷ Yanō-ma* are weapons with which they arm themselves when visiting distant villages, for use in case of a dispute or assault taking place. Before leaving their homes on these occasions they call upon

¹ Pages 450 and 468.

² *Shanen* denotes a bladed spear, and

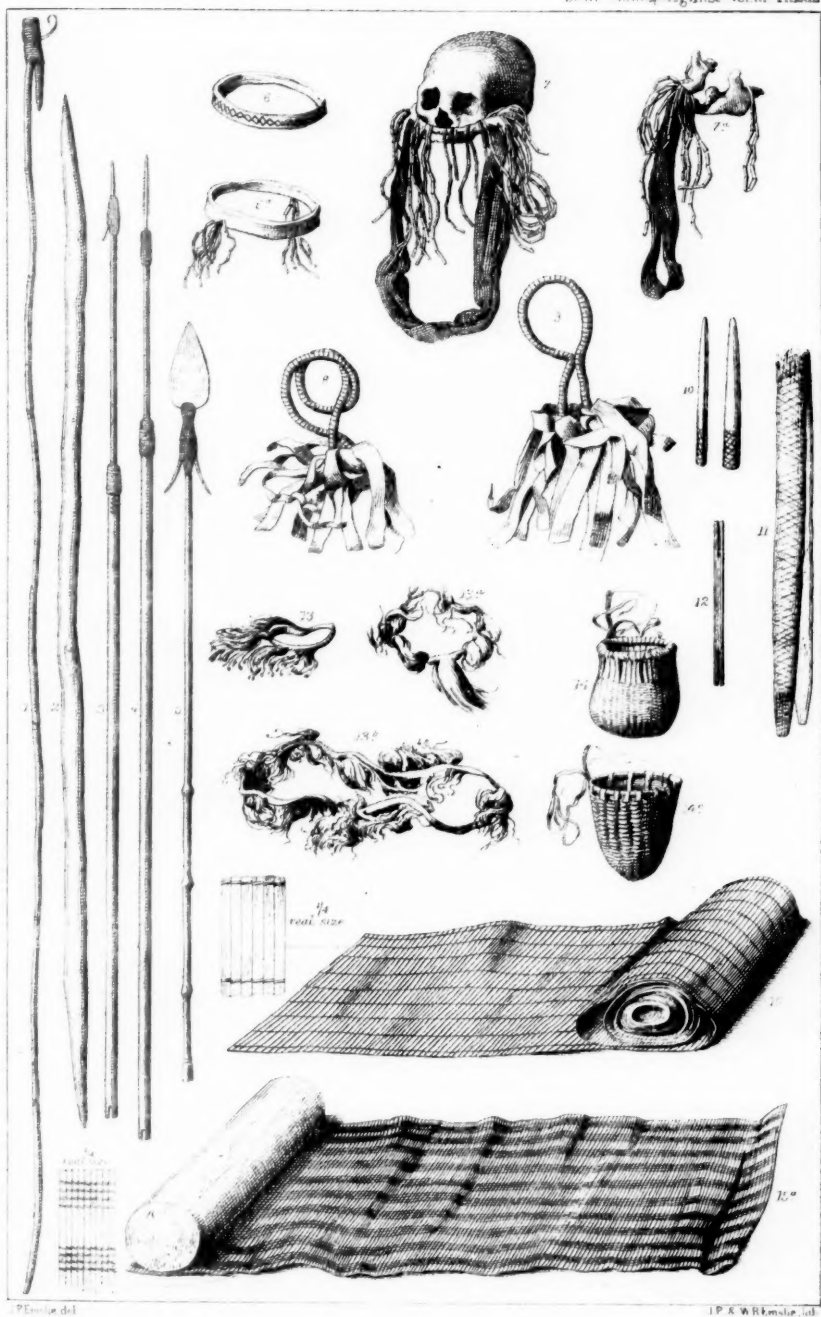
³ *Miān*, one having iron prongs.

⁴ *Vide* vol. vii, plate xv, fig. 11.

⁵ These comprise Great and Little Nicobar and adjacent islands, while the central group includes Camorta, Nancowry, Trinkut, and Katchall; and the northern consists of Car Nicobar, Chowra, Teressa, and Bozpoka. The two remaining islands Tillanghong and Batty Malve are uninhabited.

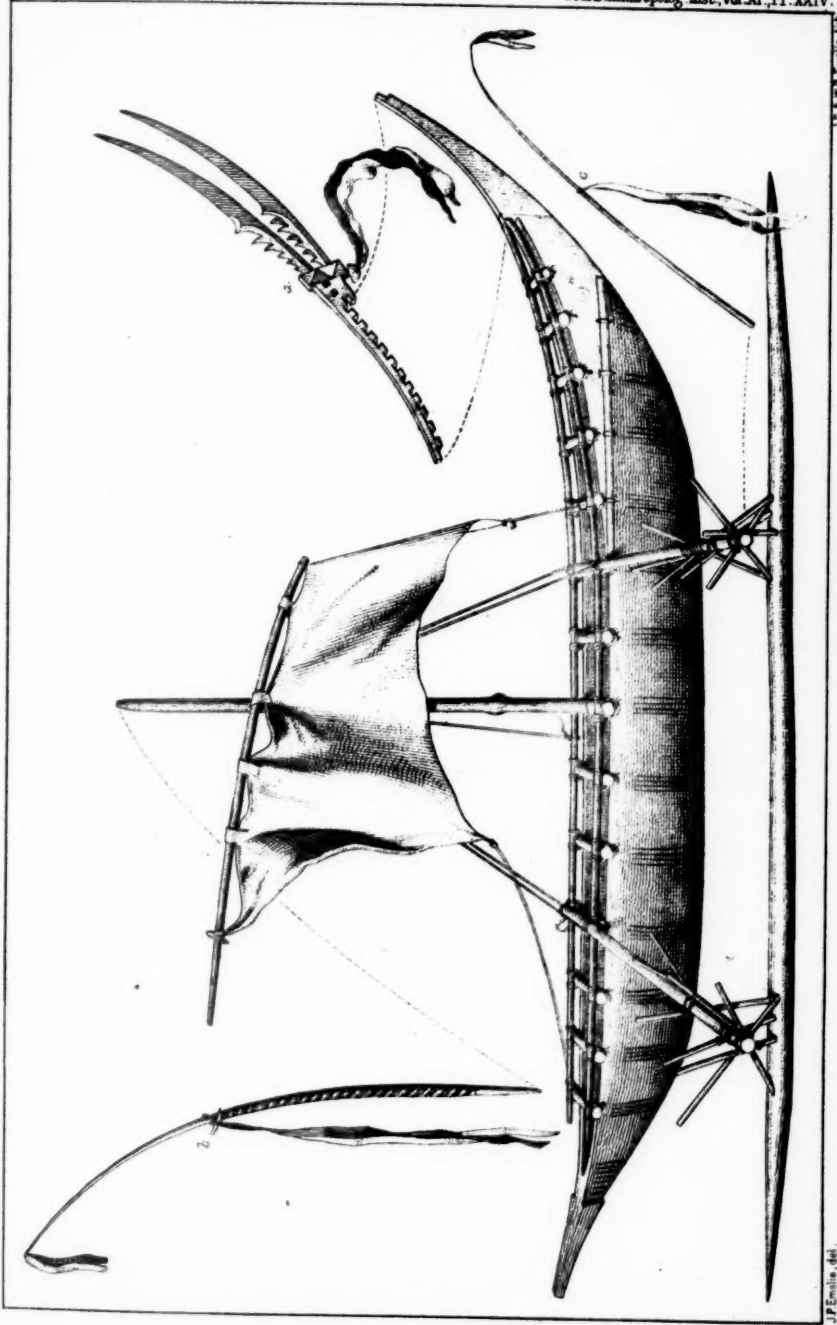
⁶ *Vide* vol. vii, plate xv, fig. 9. The only difference is that the shoulders of the *Hoplōap* blade are rounded, while those of the Malay imitation are more or less angular.

⁷ *Vide* vol. vii, plate xv, fig. 2.



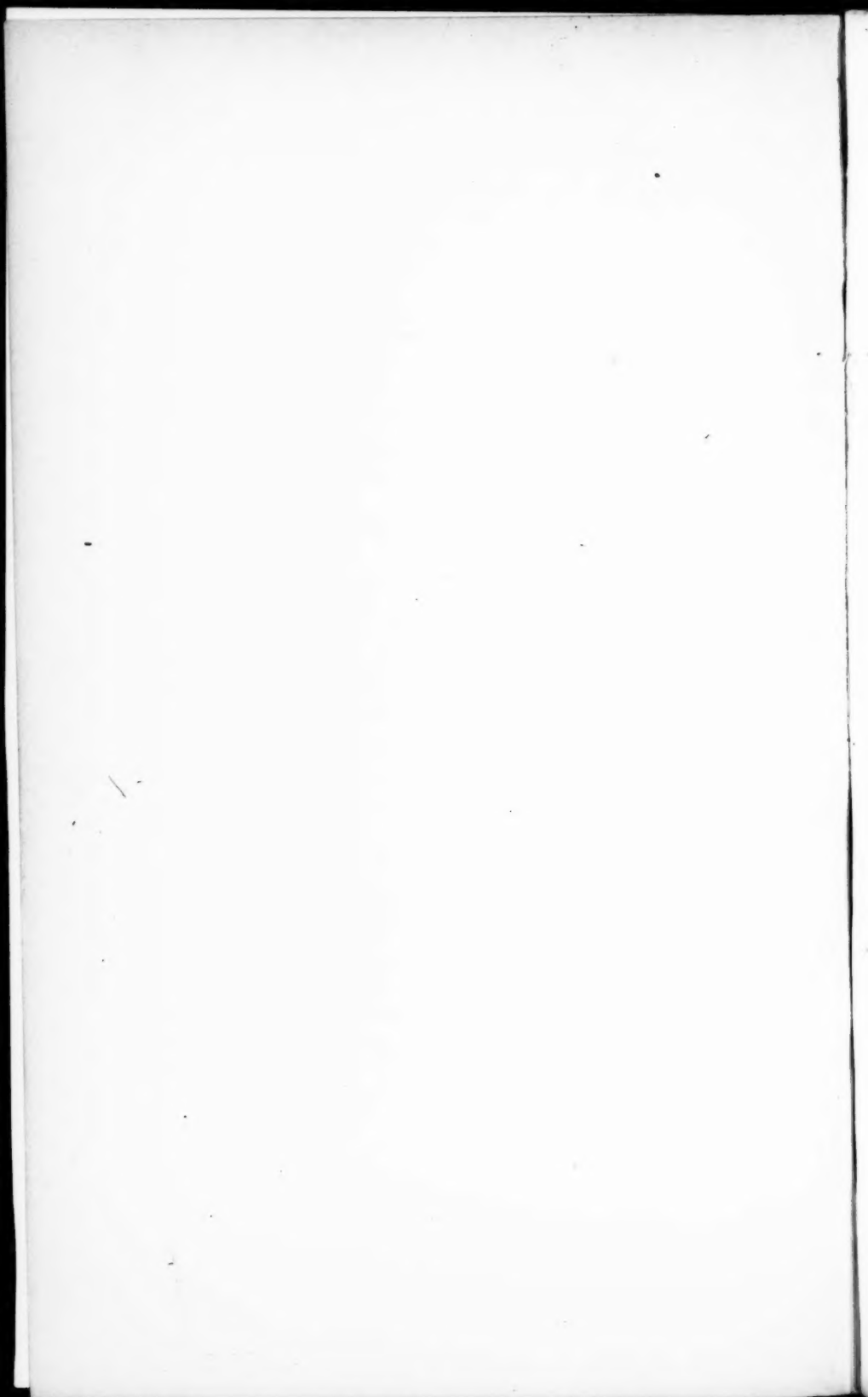
ANDAMANESE OBJECTS

obtained by M. F. H. Math



MODEL OF NICOBARESE CANOE

obtained by M^r E. H. Man.



their *mentlūana* (or "medicine man" and exorcist) to administer a charm against any injury that may threaten them at the hands of those whom they are about to visit. This he does by applying to their persons as well as to the blades of their weapons an ointment composed of cocoanut-oil mixed with the crushed leaves of three prescribed trees. The benefit supposed to be derived thereby is that the individuals thus anointed bear a charmed life if attacked, while their weapons are sure to transfix those at whom they are hurled.

5. The *Miān mōm-ān-ya* (lit., two pronged spear) is used for picking up *bêche de mer* when collecting it for sale to Malay traders.
6. The *Miān lōe* (lit., three prongs),
7. *Miān fōan*¹ (four prongs), and
8. *Miān tanain*¹ (five prongs) are used for spearing fish by day or by torchlight at night.
9. The *Hinweñh*¹ and
10. *Kan-shōka* (Plate XXVI, fig. 9) are used for harpooning, turtles, ray-fish, sharks, and dugongs. The latter, being provided with a long line, is first thrown, after which, to render the capture more certain, the former is brought into use.
- 11 (a). The cross-bow (*Fōin*) (Plate XXVI, fig. 3) is used by the natives of the northern² group, but custom only permits of its use during the north-east monsoon. By means of it they often succeed in bringing down pigeons perched at a considerable height.
- (b). The *Bel* (Plate XXVI, fig. 4) is a small bow used by children for shooting fish along the shore.

XVII. With reference to the remarks that fell from Professor Flower, after the lecture in January, 1878, I would mention that, during the period of my charge of the Andaman Homes, I succeeded with some difficulty in procuring and forwarding to Europe and Calcutta no fewer than 29 or 30 skeletons (most of them perfect) of Andamanese adults of both sexes, and I trust that much gain to our knowledge of the physical character of these savages has resulted therefrom.

XVIII. In the same evening Mr. Hartshorne mentioned a statement he had received that one of the Andamanese natives was able to count up to 18. The only members of the race who are capable of such a feat are a few who have been brought

¹ *Vide* vol. vii, plate xv.

² *Vide* footnote on preceding page.

up at the Orphanage on Ross Island. In their own language they have terms to express "one" and "two" only; their peculiar method of denoting higher numbers will be explained in my monograph.

Having now concluded my comments on those points of the last paper which appeared to me to call for some remarks on this occasion, it remains for me to show you the new objects which I have been able to add to General Pitt Rivers' collection.

Of these the *gōb*, *lākà*, *ngātanga*, and human skull *souvenir* from the Andamans, and the *Kopatōn*, *Kan-shōka*, *fōin*, *bel* and *dūe* (canoe) from the Nicobars, having been already pointed out, I need not again draw your attention to them.

There remain the following objects:—

From the Andamans,—

Pō-tōkla(da) the needles used for making the various descriptions of netting (Plate XXIII, fig. 12). They of course vary in size according to the mesh that may be required.

Kopōt(da). The bucket made from a single joint of the *Bambusa gigantea*, pieces of which are sometimes found on the coast, having floated ashore from the neighbouring continent or from wrecks.

Kai (da). Bamboo tongs for lifting the pot from the fire, taking cooked food out of it, and all such purposes (Plate XXIII, fig. 11).

Bamboo and Cane Knives. As used in former times when iron was scarce or unprocurable, for cutting meat and other food (Plate XXIII, fig. 10).

Jārāwa, sleeping mat (Plate XXIII, fig. 15a) and personal ornaments (Plate XXIII, figs. 13, 13a, 13b). It will be observed that the former¹ of these much resembles the kind in use among the eight great Andaman tribes, while the latter, consisting of a sort of string fringe painted with red ochre, differs widely from the *Pandanus* leaf ornaments which are in fashion among the tribes of our acquaintance.

Beyond alluding to their huts I shall not make any further mention of the Jārāwa tribe, as Mr. Portman, to whom I made over charge of the Homes in 1879, tells me he proposes shortly publishing a paper concerning them.

¹ The length of the *Jārāwa* sleeping mats is believed to be always much less than those of the other tribes owing to the practice which has been observed among them of using wooden pillows, after the manner of the Nicobarese, while the natives of Great Andaman make the unrolled portion of their long mats serve this purpose.

I would here point out to you a peculiarity about the *ēla(da)* or pig-arrow. The seam in the fastening at the junction of the shaft and foreshaft is always uppermost when the arrow is fired, in fact it seems to answer very much to the "sight" in our rifles and fowling-pieces.

And now we come to the remaining new objects from the Nicobars.

The *Shinpūng* differs only from the *Hōkpāk*,¹ exhibited at the previous lecture, in being smaller. It is employed for spearing sardines by torchlight, while the *hōkpāk* is used for garfish.

The *Hinyūan* (Plate XXVI, fig. 5) is the spear used by the wild inland tribe (called *Shòm Peñ*),² inhabiting Great Nicobar, regarding whom so little has hitherto been written.

Karēau (Plate XXV, fig. 1, 1a, 1b). These are specimens of charms used by the natives of the central and southern islands of the group for frightening away evil spirits. Life-size human figures represented in the act of striking with a spear are often to be seen at the entrance of their huts.

Kōi-la-Pū (*lit.* Car Nicobar prow, having been first made and used at that island). This is a model of an ornament fastened on to the bow of a canoe on high days and festivals (Plate XXIV, a).

Ti-nēanga (Plate XXVI, fig. 11), grating, placed as a seat or platform in the bows of a canoe.

✓ *Danang* (Plate XXV, fig. 5), bamboo guitars or lyre, with cane string, used on festive occasions.

Kemilī (Plate XXVI, fig. 1), fighting hat, as used by the natives of the central and southern islands of the group.

Kahāwat (Plate XXVI, fig. 2), fighting hat, as used by the natives of the northern islands of the group.

Tandp (Plate XXV, fig. 6), box, made from a spathe of the *Areca augusta* or *Nibong* palm. These are very commonly used.

Toddy strainer (Plate XXV, fig. 3), and *drinking vessel*

¹ *Vide* vol. vii, plate xv.

² Some light will shortly, I trust, be thrown on the great ethnological question regarding the racial affinities of this tribe (to which reference was made by Mr. Distant in the course of the discussion on General Pitt Rivers' paper), for in March last the island was visited by Lieut.-Colonel Cadell, V.C., Chief Commissioner of the Andamans and Nicobars, accompanied by M. de Rœpstorff, and I am informed that their attempt to see some of the *Shòm Peñ* was successful, and that but for an untoward accident a photograph of the group would have been obtained.

(Plate XXV, fig. 2). The mode of use of these bamboo utensils is obvious.

ā-neng. This narrow strip of cloth serves the purpose of an entire suit of clothes with the males.

Shanō-ang-dai-larōm (Plate XXVI, fig. 10). Chaplet made from the leaf of the *Pandanus Mellori*, as occasionally worn by young men and women, both married and single.

As will be observed, this last object much resembles the *ij̄ gōnga(da)* of the Andaman Islanders.

And now, having shown you the latest additions to General Pitt Rivers' collection of Andamanese and Nicobarese objects, let me proceed to say a few words about the Andaman Islanders.

The inhabitants of these islands are divided, linguistically, into at least nine tribes, that is, if we reckon as one all now classed under the head of *Jār-awa(da)*, among whom on closer acquaintance a few subdivisions may not improbably be found. The names of these tribes and the localities they occupy are as follows:—

ākà-Chār-rār(da)—North of North Andaman.

ākà-Jāro(da)— S.E. „ Do.

ākà-Ked-ē(da)— S.W. „ Do.

N.W. of Middle Andaman and Interview Island.

[*ākà-Yēr-rēwa(da)*—The above three tribes collectively.]

ākà-Kōl(da)—N.E. of Middle Andaman.

ōko Jāwai(da)—W. and Middle of Middle Andaman.

ākà-Bōjig-yāb(da)—S. and S.E. of Middle Andaman.

Bōjig-ngiji(da)—South Andaman (including Rutland and the Labyrinth Islands).

ākà-Bal-awa(da)—Archipelago.

Jār-awa(da)—Little Andaman, the Sentinels and parts of South Andaman.

The well-nigh impenetrability of the jungles in which a large number of their encampments are situated and the low intellectual condition of the inhabitants are formidable obstacles against any accurate numbering of the tribes of Great Andaman, while the continued inveterate hostility of the various *Jār-awa* communities has hitherto rendered the task in their case insurmountable.

With regard to population, therefore, we possess no means of speaking with any degree of certainty, but it seems probable that the aggregate at the present day does not exceed 4,000 souls. This estimate is based on the assumption that at the time of our advent, in 1858, the aboriginal population of S. Andaman

numbered about 1,000, or even more, although at the present day, from various causes which it is not hard to discover, it is believed not to exceed 500.

The knowledge we now have of the existence of communities living in the heart of South and Middle Andaman called *ērem-tāga(da)* as distinguished from the *āryōto(da)* with whom they are allied in all respects save in their mode of life, seems to afford ground for the belief that among the aborigines in North and Little Andaman there are similar distinctions. The term *āryōto(da)* applies to all fishermen or coastmen, while that of *ēremtāga(da)* denotes those living inland whose subsistence depends on the spontaneous products of the jungles. These two distinct sections still exist in a measure among the *Bōjig-ngīji(da)*, but many of their distinguishing peculiarities have become so modified or blended, in consequence of their residence at the various homes to which I have alluded, that it is at times a matter of some difficulty to determine to which of these two classes certain individuals originally belonged. This intermingling of the inland and coast dwellers in the vicinity of our settlement obliges us to go to distant communities, where the same influences have not been at work, if we would obtain reliable information as to their respective habits.

It fortunately happened that, in 1876, during the period I had charge of the homes, a party of the *ēremtāga*, or inland members, of the *Ōko-Jāwai* tribe were induced by one of their coast chiefs to accompany him in a trip to Port Blair. They remained some months in our midst, and I had thus the opportunity of learning much that could before be but vaguely surmised. The following statement obtained from a youth named *Wōi*, the most intelligent of the party, should dispel the belief held by some that it is impossible that there can be people living permanently in the interior of Great Andaman, judging as they do from the fact that, in the eyes of civilized beings, the jungles contain so little that is capable of supporting human life.

As I have before me the original vernacular in which *Wōi's* statement was made, I will, with your permission, read a few lines of it in order that you may be able to form some idea of the character and sound of the *Bōjig-ngīji* dialect. In the translation I have made I have adhered as closely as possible to the text.

Wai döl 'óko-Jūwai ðremtága.

Indeed I jungle dweller.

Dia ðr lôt ting Tólo-bòicho jūru

My village of name sea

tek elarpála(da).

from far.

Mūda ela-wángaya būd tek tūtōra

If daybreak at home from coast

len náunga-bēdig tilik dila

to walking by perhaps evening

len kágalke.

in reach.

Med-árdūru ūgar jībaba ēkan ðr

We all months several own villages

len pōlike nggá tárūlolen jēg

in live then afterwards dance

lēdāre áryōto ūa paichalen yāu-

for coast-men among go

gake. 'óna ūcha naikan jēg-

When this like go for a

īkke árlalen īgal lēdāre mīn

dance always barter for something

tōyuke, kich-ikan reg-dama, ēāte

take namely pork also

reg-kōi'ob, ēāte rātā, ēāte

red paint wooden arrows

jōb, ēāte chápanga, ēāte kūd,

baskets reticules hand-nets

ēāte rāb, ēāte tāla-ōg,

necklaces of netting white clay

ēāte tālag, ēāte pār-ēpa, ēāte

hones sleeping mats

kāpa-játnga áweh.

leaf screens etcetera.

I belong to the inland section of the 'óko-Jūwai tribe.

The name of my village is Tólo-bòicho.

It is far from the sea.

If one were to start for the coast at daybreak one might, perhaps, by walking all day, reach it in the evening.

We all live for several months together in our own village, and then we go to the coast people for a dance. When we make a trip for this purpose, we always take with us some things for bartering, viz.: pork, red paint made with pig's fat, wooden-headed arrows, baskets, reticules,¹ hand-nets for fishing, ornamental necklaces of netting, white clay for ornamental painting of the person, hones, sleeping mats, leaf screens, etcetera.

"On our arrival we first, according to custom, sing and dance, after which we barter all our things, and then some of us go with some of the coast people in their boats in order to witness their skill at spearing, we meanwhile being seated in the bottom of the boats. The rest of us accompany their friends among the coast people at pig-hunting.

"After a few days we pack up the things we have received in exchange from the coast people, such as pig-arrows, iron, knives, adzes, bottles, red paint made with turtle fat, turtle flesh, nautilus shells, *Pinna* shells, *Dentalium octogonum* *Hemicardium Unedo* ("strawberry") shells, &c., and then taking leave we return to our home.

"Just as the coast-people by hunting, fishing, and other means, experience no difficulty in regard to food, so also in every season do we, who live in the heart of the jungle, find plenty to eat.

¹ I can think of no word more suitable to describe this object, as it is literally a "small net-work bag" which serves precisely the same purpose as the elegant equivalent so commonly used by ladies in lieu of a pocket.

"All we inland tribesmen remain at our own villages during the rains. We only go our round of visits during the fruit season, when there is no rain. It is then that we go to see our friends at distant encampments. After an absence of a month or two we return. We again leave our homes towards the close of the dry season, in order to collect and bury the seeds of the jack fruit (*Artocarpus chaplasha*). In about a month we return to our homes.

"In our tribe those living in the heart of the jungle are more numerous than those living on the coast. *Tólo-bòicho* is larger than *Bárlákàbùl*¹ but there are many villages in our jungle larger than *Tólo-bòicho*. Our huts are also larger than those of the people on the coast, and, moreover, last several years without renewal.

"During the whole year we all find plenty of food close to our homes. We find it sufficient to go only now and then to get food. We constantly spend our time in dancing and singing.

"When any one dies in our village we all migrate to some vacant camping-ground, where we provide ourselves with temporary huts in which we live according to custom for a few months; after which we recover the bones of the deceased, and return to *Tólo-bòicho* in order to weep and dance over their distribution.

"Except in such cases as that just mentioned, the old people and children always live at their own villages. The women only pass the night away from their own homes when they accompany us (men) in the fruit season for the purpose of paying our (annual) visits to our friends; otherwise they, like the old people and young children, always remain at their own villages.

"When engaged on a hunting expedition we men, during the rains, often spend a couple of days away from our homes.

"As we who live in the heart of the jungle do not, like the coast people, migrate from one encampment to another, we deposit all our rubbish and refuse matter at such a distance from our villages that we are never troubled with offensive odours.

"There are a few permanent encampments among our coast people. There they often live for months together, while the rest of them are constantly shifting their quarters from one (temporary) encampment to another.

"There are large kitchen-middens² near our villages as

¹ A well known coast encampment near Flat Island.

² "The kitchen-middens are always situated close to the sea-shore. The occurrence of them far inland would indicate that some terrestrial changes in the islands have taken place."—(Stoliczka).

[NOTE.—When writing the above lines, in 1870, Dr. Stoliczka was unaware of the existence of permanent dwellers in the interior, hence the error into which he fell.]

well as near the (permanent) encampments of the coast-people.

"I have been into the heart of the *ákà-Kedē* territory, when I observed that there were a vast number of inland people living among them. We are of opinion that they are more numerous than ourselves. I have now seen all the people of the South Andaman tribe. Their number is very small.

"Near the coast the jungle is always dense, but where we live (*i.e.*, in the heart of the jungle) it is not so.

"We are acquainted with the customs and habits of the *Bōjig-yāb* and *ákà-Kôl* tribes. They resemble ours. As with us of the *ôko-Jūwai* tribe, so among them are there both those who live on the coast, and those who live in the interior. There also the latter are in the habit of living for months together in the heart of the jungle, and remaining each one at his own encampment. As only a small portion of the *Bōjig-yāb* territory is far from the sea there are but few *èrem-tāga(da)* (in that tribe)."

I may mention that the foregoing statement has been fully confirmed by enquiries made by me in other quarters.

Until recent years not only did the belief prevail that no encampments or kitchen-middens exist except on the coast, but also that the entire race is nomadic to such an extent that they rarely occupy the same place two nights in succession. Although the majority of the coast people do lead a nomadic life, there are among them not a few permanent encampments which, like the villages in the interior, are never deserted except when a *jeg*, *i.e.*, dance or "corroboree" (as called by the Australians), takes place at some other hamlet, or when a death occurs, on which occasion, like the inland tribesmen, the *áryôto* invariably give the ghost of the departed a wide berth, by abandoning their homes for several weeks or months.

In the permanent as well as in the temporary encampments of the eight Great Andaman tribes, the huts almost invariably partake of the character of the simple lean-to; there are three distinct varieties recognised under the names:—*châng-tēpinga(da)*, *châng-tōrnga(da)*, and *châng-daranga(da)*. The first of these is found only in permanent encampments; it is the most durable, being neatly and strongly thatched with palm leaves plaited into rolls and so fastened together with cane as to form a roof impervious even to the heavy rains so common in these latitudes. It is capable of affording accommodation for about half-a-dozen persons. Sometimes these huts are placed together in such a way as to resemble small sheds. As this has hitherto only been noticed in South Andaman and the southern portion of Middle Andaman, it is possible that the practice originated from their observing the form of our barracks at Port Blair.

The second variety, *châng-tórnga(da)*, differs only in being smaller and less neatly thatched; it is generally erected in temporary camping grounds, when a stay of a few weeks or months is contemplated, as, for instance, during the mourning period which, as I have just mentioned, is invariably spent at a distance from the spot where the death occurred.

The third kind, *châng dar-anga(da)*, are little more than leafy shelters, capable of accommodating two or three persons only, which the women erect, when a halt is made for a few days or even hours at one of the numerous camping-grounds. Without disparaging the capabilities of the fair sex when on their own ground, it must be conceded that there are some things which lie outside their province; and Figuier's statement, that the Andamanese live in "lairs," can only be fairly explained by the assumption that the *châng-dar-anga(da)*, so commonly met with along the coast, which are the handiwork of women, was the only type of Andaman dwelling known to the traveller who constituted his authority.

In Dr. Tylor's "Anthropology," to which I have already referred, allusion is made to the palm-leaf shelters erected by the naked Puris in the depths of the Brazilian forests. From the description given it is evident that they much resemble the *châng dar-anga(da)* of the Andaman Islanders. Dr. Tylor also mentions the alleged practice among the Andamanese of scooping holes in the sand as a temporary habitation, but, as already affirmed by me in the foregoing, there is no such practice traceable among these tribes.

Although the sites selected for occupation are usually well sheltered, it is not always found possible in tempestuous weather, even in the more or less dense jungle which covers every portion of their country, to obtain shelter sufficient to allow of all their huts facing inwards towards the *bū-lūm(da)* or dancing-ground. The primary consideration being naturally to secure as much comfort as possible, the sloping roof is at such times presented towards the prevailing wind. It is hardly necessary to add that the sites of their permanent, as well as many of their temporary encampments, are in the vicinity of freshwater springs or streams.

The *Jār-awa* huts are certainly superior to those inhabited by the eight Great Andaman tribes; they are generally circular in form and have been found to measure as much as 50 feet in diameter, and 30 feet in height. The idea would seem to have been borrowed from the Car Nicobarese, with whom, in past years, they had some encounters, and whose huts are almost invariably of the beehive pattern.

The furniture in the primitive huts of Great Andaman will not

need lengthy description as, besides the sleeping mat, *pàrēpa(da)*, or bed of leaves and a few implements and utensils, it consists simply of a sort of grating of twigs, supported by one or more sticks over the fire, which is an indispensable requirement of every Andamanese home. These gratings, as I have already mentioned at the commencement of this paper, serve as larders, while the smoke from the fire preserves the provisions from the attacks of insects. From the front of the roof, by way of ornament, are hung trophies of the chase, or these are strung on poles stuck in the ground, for a fine display of skulls of pigs, turtles, dugongs, &c., excite envy and admiration among their neighbours and acquaintances much in the same way as drawing-room walls, covered with plates of quaint and diverse patterns, delight the eyes of our modern English æsthetes to whom I would offer the idea when seeking for the next novelty in decoration.

As we have seen from *Woi's* statement, it is the custom among the people in the interior and in the few permanent communities on the coast, to clear away at once all rubbish from the vicinity of their dwellings, and the necessity for such sanitary measures would seem to have been long since recognised by them to judge by the numerous kitchen-middens scattered throughout their territory, many of which are evidently of remote origin. Such habits of cleanliness are not, however, observed among those of the coast-dwellers who are constantly on the move; they content themselves with sweeping the dancing-ground—and that only when a dance, wedding, or other ceremony is about to take place—lest injury should befall any of the revellers through inadvertently treading on a flint, shell, or bone; the rest of the camping ground is left to self-constituted scavengers, such as crows, iguanas, hermit-crabs, and dogs which, during the migrations of the party, fulfil this necessary and useful office.

It is impossible, without encroaching too much on your time, not to pass over many details regarding the manners and customs of this race, which are well deserving of notice, but these omissions I purpose supplying in the monograph which I am preparing; for the same reason I now leave the points relating to their physical peculiarities in order to touch upon matters of more general interest.

All who have been for any length of time associated with these savages cannot but remark with regret that, from contact with civilization, they lose the primitive virtues of truthfulness, honesty, and industry, which were marked characteristics of their former state. In many points they appear to resemble the Papuans, being merry, talkative, petulant, inquisitive, and

restless; their speech is rapid, with a constant repetition of the same idea; a joke, if it does not take too practical a form, is heartily appreciated, while all insults or injuries are promptly resented.

The views held regarding their courage are somewhat conflicting. There is no doubt that on many occasions in their early encounters with us they displayed most gallant conduct and utter disregard of their lives, and similar behaviour characterises at the present day the one tribe with whom as yet we have been unable to establish amicable relations, viz., the *Jarawa*. My experience, however, and that of many others, leads me to believe that much of this apparent bravery has been due to ignorance of our power and resources, and that, unless confident of their own superiority, and the comparative impotence of their foe, nothing short of despair or uncontrollable rage would cause them to risk a dangerous encounter. In war all is considered fair, and treachery is even commendable. Among themselves, when very angry, they either fire an arrow so as to alarm or maim the object of their wrath, or they place the left hand palm uppermost between their teeth, and glaring fiercely at something on the ground *near* the offender, utter words of terrible import, while a weapon is brandished in the right hand; and there in most cases the matter ends. When a dispute arises between two men which is likely to end seriously the friends on both sides generally endeavour to seize them, and remove their weapons. Should they fail in this, all the bystanders lose no time in beating a hasty retreat, and do not return until assured that all danger is past.

Exaggeration when relating an incident or exploit in which they have taken part is as common here as in certain civilized lands, but the accounts given are generally so highly coloured that they fail to impose even upon the most credulous. "*Yāba l'ārchūke dāke*" is the usual retort made by the sceptical on these occasions, which finds its nearest equivalent in the vulgar but expressive phrase "draw it mild" of our mother tongue: this invariably calls forth a torrent of virtuous indignation from the gentleman of the long bow.

They set no fixed value on their various properties, and rarely make or procure anything for the express purpose of bartering with it. Iron pointed tools and *Dentalium octogonum* ornaments are in great request with the *ēremtāga(da)*, who gladly give in exchange such things as are more easily obtained by them than by the *āryōto(da)*.

These transactions they are pleased to consider as presentations, but it is tacitly understood that no present is to be accepted unless an equivalent is rendered, and, as the opinions

of donor and recipient are liable to differ as to the respective value of the articles in question, a quarrel is not unfrequently the result.

The rights of private property are respected, and, without permission, no Andamanese would appropriate, or remove to a distance, any weapon or tool which belonged to a neighbour; at the same time cooking pots, canoes, and sounding boards,¹ when not in use by the rightful owner, are considered available if required by members of the same community. As may be readily supposed the laws of inheritance are of the simplest. The effects of a deceased person become the property of the next of kin, who, as often as not, speedily bestows them upon such of his friends as may be in need of any of the articles in question.

It is customary for each family to supply itself with the chief necessities in the shape of weapons and food. The men hunt, collect honey, shoot fish, harpoon turtles, construct boats, paddles, weapons, buckets, the sounding-boards used in dancing, and also build the two kinds of huts I have before mentioned. A certain pre-eminence is assigned to those who excel as hunters or fishermen, and such are usually found to be chosen as chiefs or head-men of a community.

The performance by men of duties which are supposed to pertain only to women is considered *infra dig.*, and, while they will cheerfully carry a heavy turtle or the carcase of a pig, they have a strong dislike to fetching firewood or water for domestic purposes, these being regarded as essentially the work of women and children.

But the duties of the woman do not end when she has provided the necessary amount of water and fuel. It devolves upon her and the children to procure many of the minor articles of food, and she generally does the cooking: in addition to these domestic occupations she employs herself in the manufacture of certain articles in daily use which are considered to fall within her province. Shaving, tattooing, and scarifying make further demands upon her time, as does also the preparation of *Kòib(da)*, *tála-ōg(da)*, and *Kāngatā-būj(da)*, which are used in painting their persons or their goods on various occasions; and thus it will be seen that little leisure is left for the mischief which is proverbially found "for idle hands to do."

However, in spite of all this seemingly hard work, a lengthened acquaintance with various communities living within a considerable radius of Port Blair satisfactorily proves that perfect equality prevails between husband and wife, and it may be

¹ *Vide* vol. vii, plate xiii, fig. 15.

safely asserted that the treatment she receives from her lord and master would contrast favourably with much that is prevalent among a large proportion of our labouring classes in this land.

The Andamanese have been surprised and even amused at hearing of some of the habits and customs attributed to them ; but the accounts given of their marital relations are so absurdly incorrect as to have caused them considerable astonishment. So far from marriage being regarded as a merely temporary arrangement to be set aside by the will of either party, no incompatibility of temper or other cause of disagreement is allowed to dissolve the union ; and, while divorce is unknown, conjugal fidelity till death is the rule and not the exception.

The question of propinquity is considered an important one in connection with matrimony, and such persons as are known to be even distantly related are forbidden to marry. Relationships are not traced, however, beyond the third generation, and this must be accounted for by the absence of any system for maintaining records, and also by the fact that the extreme length of life among them cannot be reckoned as exceeding fifty years.

It is an especial and praiseworthy characteristic of these savages that the aged, the helpless, and the suffering are invariably made primary objects of solicitude, while the young are early instructed in the virtues of generosity and self-denial, as well as in the duties of showing respect and hospitality to all friends and visitors.

Among the curious customs of these islanders is one relating to adoption, which would lead to the conclusion that they are entirely lacking in parental affection, whereas, on the contrary, it is a strongly marked feature in their constitution. Few, if any, Andamanese children remain with their parents after the age of six or seven, and this because it is considered a compliment and a proof of friendship for a guest to ask permission to adopt one of his host's children when in a position to do so. The request is never, or, in very rare instances, refused, and the child's home is henceforth with his self-constituted guardian, who is at liberty to part with him, if he please, to a third person without any reference to the parents, who are merely informed of the change in order that they may be able to pay occasional visits to their child, though they have no longer any control or authority over him.

Contrary to the practice among most nations, no salutations are exchanged between friends on meeting after a lengthened absence ; but when time is no object they remain speechless, gazing intently at each other for sometimes as much as half-an-

hour; the younger of the two then makes some common-place remark which breaks the ice, and they lose no further time in hearing and telling the latest news. It is usual for them also to exchange such things as bows, arrows, nautilus-shells, &c., which may happen to be in their hands when they meet, and such gifts are regarded as proofs of affection.

Relatives testify their joy at meeting after a few months' separation by throwing their arms round each other's necks and sobbing *à chaudes larmes*, as if their hearts would break. This to us somewhat incomprehensible proceeding is inaugurated by the women, but the men are not long in following suit, and groups of three or four may be seen as if vying with each other in the loudness of their lamentations of rejoicing until fairly worn out. The day is then wound up with the inevitable dance and song.

No traces, even in bygone years, of any forms of worship or acts of veneration to bodies celestial or terrestrial are to be found; yet there is a vague belief in the existence of One (called *Pūluga*) who, they say, lives in the sky, is Immortal, Invisible, Omniscient in the day time, even reading the thoughts of men, the Creator of the world, and of all objects animate and inanimate, though not of the evil spirits, which are three or four in number. They say that *Pūluga* pities those in pain and distress, and that it is He who sometimes affords relief. There are certain crimes and offences which anger Him, and storms are regarded as evidences of His wrath. He is supposed to eat and drink, and during the dry months He is said to sleep, as thunder, which is His voice, is then rarely heard. But, for all this, their belief in, and dread of, evil spirits is much stronger; almost all deaths sickness, and calamities being attributed to their machinations.

They have confused traditions which seem to correspond to the Fall and the Deluge, as they aver that the latter took place in consequence of their first parents having eaten of a fruit which, at a certain season of the year, *Pūluga* requires for His own delectation, and which He had therefore expressly forbidden them to touch during that period. So strong a hold has the legend on them that, during the first half of the rainy monsoon, they will not eat the *Caryota sobolifera* or pluck the seeds of the *Entada Pursaetha* for food; but the prohibition in the latter case does not extend to any seeds which may have fallen to the earth. Another superstition exists regarding the burning of wax, which is supposed to be peculiarly obnoxious to *Pūluga*, and it is a common practice secretly to burn wax when an enemy is away on a hunting or fishing expedition in the hope of exciting *Pūluga's* wrath and causing a violent storm which will spoil the sport.

In tempestuous weather leaves of the *Mimusops Indica* are burned, as the popping sounds thereby produced are sweet to *Pūluga's* ears and have the effect of calming his fury.

The earth they believe to be flat and to rest like a plate on the top of an immense specimen of the *Caryota sobolifera*. A great earthquake will some day cause it to topple over and then those living on it will exchange places with their deceased friends below, who, in order to bring about this most desirable state of things, combine from time to time to shake the tree and thus cause an earthquake. They are, however, said to be careful to make these attempts to hasten the march of events in the rainy season only lest, at other times, the dry earth should crumble and crush them in its fall.

There are certain individuals in these tribes known as *ōko-paiad(da)* (*lit.* a dreamer) who are accredited with supernatural powers, and are supposed to possess a mysterious influence over the fortunes and lives of their neighbours. They are invariably of the male sex, and like the disease-makers of *Tanna* (New Hebrides) are thought to have power to bring trouble, sickness, and even death upon those who fail to propitiate them with continual and substantial gifts.

They employ no special charms and it is chiefly during sleep, which in all probability is feigned, that the power is said to be exercised. When appealed to in serious illness the *ōko-paiad* first examines the patient and presses the limbs, muttering and making sundry strange noises as if invoking and kissing some invisible person; he then informs the sufferer and his friends that he is about to search for the spirit which, at such times, is believed to be wandering in or towards *Jerreg(da)* or Hades. To this end it is necessary for him to fall asleep, and he accordingly lies down and betakes himself to the land of Nod; after going through the formality of waking he either informs them that he has succeeded in capturing the errant spirit and has brought it back, or, if recovery seems hopeless, gravely assures the anxious assembly that no entreaties would avail to induce *Pūluga* to restore the spirit.

All sudden deaths are attributed to the malign influence of *ērem-chāugala* (the evil spirit of the woods), or to that of *Jūru-win(da)* (the evil spirit of the sea); in either case one of the male relatives of their luckless victim approaches the spot where the corpse is lying and shoots several arrows into the jungle, or pierces the ground with a pig or turtle spear, in the hope of injuring the unseen foe on whom he vents his grief in bitter imprecations.

None save infants are buried within the encampment, all others being taken to some distant and secluded spot in the

jungle, where they are interred in a sitting posture in a grave 4 or 5 feet deep, or are placed upon a platform after the Australian method; the latter mode is considered the more complimentary, in that it necessitates rather more labour.

At the obsequies the mourners blow gently two or three times upon the face of the corpse in token of farewell, and, before leaving, light a fire and place a *göb(da)* (*vide ante*) full of water beside the spot.

When the mourning period has expired (say two or more months) the same party return in order to remove the remains and to prepare and cleanse the bones for further use.

And now, having killed and buried my man, Dr. Allen Thomson will show us that the skeleton has uses and interests for us as well as for the relatives of the deceased.

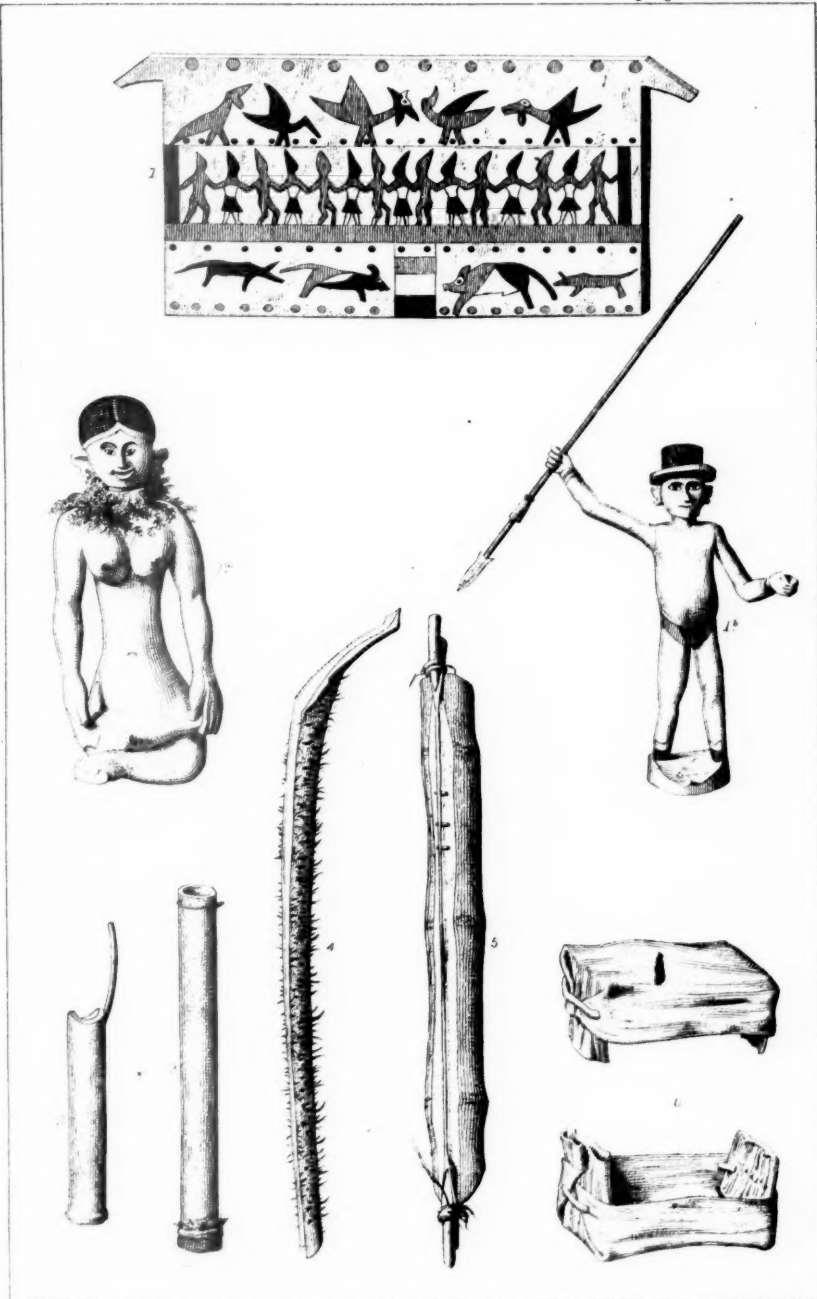
APPENDIX I.

Copy of Letter referred to in foot-note at page 273.

DEAR MR. MAN,

Your remarks on the so-called tree ovens of the Andamanese confirm a suggestion of mine put forward in a paper on early modes of navigation which I read before the Anthropological Institute some time ago, showing that these so-called tree ovens are in reality nothing more than the trees against which fires have been lit. The passage to which I refer is as follows: "I have noticed when travelling in Bulgaria that the gipsies and others who roam over that country usually select the foot of a dry tree to light their cooking fire; the dry wood of the tree, combined with the sticks collected at the foot of it, makes a good blaze, and the tree throws forward the heat like a fire-place. Successive parties camping on the same ground, attracted thither by the vicinity of water, use the same fire-places, and the result is that the trees by degrees become hollowed out for some distance from the foot, the hollow part formed by the fire serving the purpose of a semi-cylindrical chimney. Such a tree, torn up by the roots, or cut off below the part excavated by the fire, would form a very serviceable canoe, the parts not excavated by the fire being sound and hard. The Andaman islanders use a tree in this manner as an oven, the fire being kept constantly burning in the hollow formed by the flames."

You say in your paper that the Andamanese have no tradition of the use of fire for excavating, but negative evidence is of course insufficient to determine the non-existence of any art. The use of

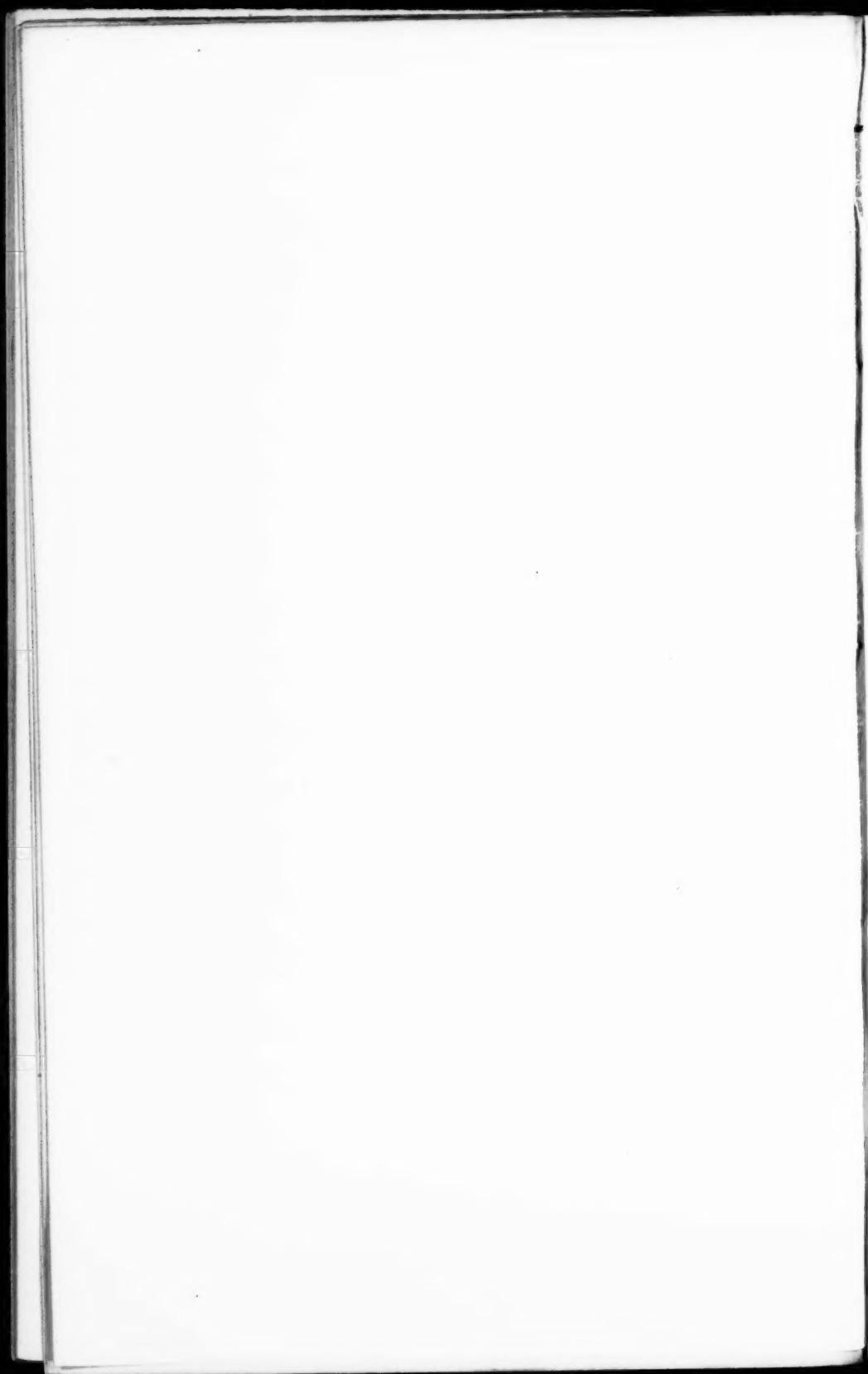


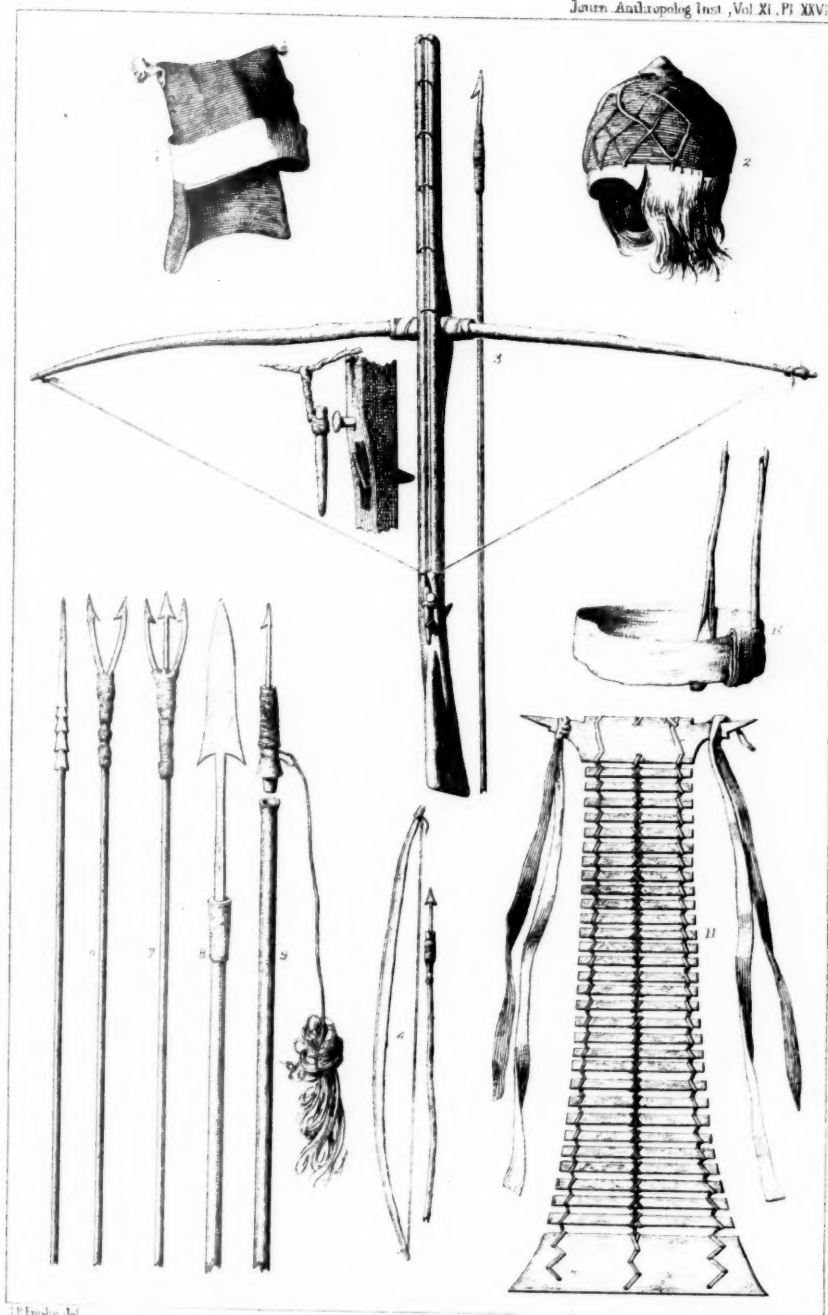
J. P. Emile del.

J. P. & W. R. Emile, lith.

NICOBARESE OBJECTS

obtained by M^r E. H. Man.





J.P. Emile del.

J.P. & W.R. Emile lith.

NICOBARESE OBJECTS

obtained by M^r E. H. Man.

fire is invariably associated with the employment of stone implements, and the Andamanese having, as you say, lost all tradition of the use of the stone implements which are found in the kitchen-middens may very probably have lost the tradition of the use of fire which is an almost necessary adjunct to the employment of their blunt tools; besides which it is very probable, from the resemblance of their canoes to those of other neighbouring nations, that the art of digging out canoes did not originate independently in the Andamans, and it may even possibly have been introduced since iron was available for adzes. At any rate there is no doubt that in the majority of places where dug-out canoes are employed, fire is used for the purpose, and it seems to me not unreasonable to suppose that the primitive use of a tree as a fire-place, forming as it does a canoe-shaped trunk, may have led in many places to its employment in canoe making.

Yours very truly,
(Signed) A. PITT RIVERS.

APPENDIX II.

List of Symbols employed to denote the Sounds of the Vowels, Diphthongs, and Consonants of the Andaman and Nicobar Languages.

ORAL VOWELS AND DIPHTHONGS.

Symbol.	Example in English, &c.	Example in	
		Andamanese	Nicobarese.
a	woman	al'aba; Bal'awa	yang
ā	deter	bā; yāba	kātā; dāk
à	mat	Jār'awa	lèat
â	father	dāke	kān
e	every; bed; padre (It.)	elākā; ěmej; pũdre	enyāh; heng; lēbare
ē	(Fr.) père; fête	ēla	lēang
i	lid	igbādīg	ifā
ī	police	yādī; pīd	wī
o	redolent	Bōigoli	yōkolai
ō	pole	jōb	larōm
ò	pot	pōlike	ōmtōm
ô	awful	tōgo	lōe
u	influence	būkura	kōla-rue
ū	pool	pūdke	hūya
ü	(Germ.) über	..	chūa
ai	aisle	duike	taiyāk
au	house	chōpaua	karēau
äu	(Germ.) haus	chāu	ōāu
öi	toil	Bōigoli	enlōin

NASAL VOWELS AND DIPHTHONGS

Symbol.	Example in English, &c.	Example in	
		Andamanese.	Nicobarese.
añ	(Fr.) <i>un</i>	..	hol'añ; ongī-hañh
ân	*	..	miân; mòm-ân'ya
eñ	(Fr.) <i>vin</i>	..	heñ'ha; hinweñh
in	(Port.) <i>sim</i>	..	koñ'ha; amñih
on	(Fr.) <i>on</i>	..	haroñh
ôn	*	..	kan-hôn; ðñh
aiñ	..	..	tanaiñ; taiñ'ya
oiñ	..	..	òm-hoiñ

* These two Nicobarese nasals (ân and ôñ) both approach the French *n*, but the first has more of the â, and the second more of the ô sound in it.

CONSONANTS.

b	bed	bōd	lēbare
ch	change; church	{ chāk; michalen; } Rūch	chakā; raich
d	dip	dōga	kamin'do
f	fen	..	ifē; fāp
g	gap	gōb	kōg'nare
h	hay	hē; āweh	hūya; paiyūh
j	jump; bridge	jābag; ēmej	chij
k	king	kāgalke	kāncāl
l	lap	lōg	lēang
m	man	mūgu	ōmtōm
n	nun	nāuke; rōpan	nōt
ñ	(Fr.) <i>gagner</i>	ōñāba	manleña
ng	bring	ngiji; kēdang	yang
p	pap	pīd	paiyūh
r	rest	rāb; rātā	karu
s	sad	..	sāla
sh	shall	..	sho-hōng
t	ten	tī	tōak
v	evil	..	hen-hoāva
w	wet	wōlo; Bal'awa	wōt
y	yellow	yabā	yang

Notes.—A turned period occurring after a syllable denotes that that syllable is under stress.

Except where the turned period is thus used, stress is laid on the last syllable bearing an accent mark.

For typographical convenience, capitals of vowels which bear an accent mark are indicated by placing a turned period before them as 'ākā-Ked'ē; 'īra; where 'ā, 'ī, mean the capitals of ā, ī.

When convenient, as in writing, the capitals themselves may be used surmounted by the proper accent mark.

Explanation of Plates XXIII to XXVI.

PLATE XXIII.

- Fig. 1. Ngâtanga(da); Hooked pole for gathering fruit.
 Fig. 2. Lâkâ(da); Hoe used for digging up edible roots.
 Fig. 3. Tôlbôd(da); Fish-arrow with iron-pointed head and barb, as commonly used.
 Fig. 4. Tôlbôd l'ârtâm(da), *i.e.*, ancient fish-arrow, headed with the serrated tail-bone of the sting-ray, as formerly used when iron was not obtainable.
 Fig. 5. Êla l'âkâ lûpa (da), *i.e.*, plain pig-arrow, having no foreshaft; it is more easily made, but is less effective than the *êla* (*vide* Vol. vii, Plate xiv, fig. 5, where the remaining varieties of arrows are also represented).
 Figs. 6 and 6a. Ijî-gônga(da); *Pandanus* leaf head-dress.
 Fig. 7. Châuga l'ôt chêta(da); Human skull } as carried by
 Fig. 7a. Châuga l'âkâ êkib(da); Human jawbone } mourners.
 Fig. 8. Tôgo chônga (da); *Pandanus* }
 leaf bracelets } worn only by men and
 Fig. 9. Tâ chônga(da); *Pandanus* } youths.
 leaf garters.
 Fig. 10. Chô(da); Knives of bamboo and cane as used in former times.
 Fig. 11. Kai(da); Bamboo tongs.
 Fig. 12. Pôtôkla(da); Bamboo netting needle.
 Fig. 13. Armlet; 13a, necklet; and 13b, waistbelt as worn by members of the Jârawa tribe.
 Fig. 14. Jôb(da); Basket
 Fig. 14a. Bûj râmata(da); Basket- } as used by the
 work cover for cooking-pot } Jârawa tribe.
 Fig. 15. Pârêpa(da); Sleeping mat as used by the Great Andaman tribes.
 Fig. 15a. Pârêpa(da); Sleeping mat with wooden pillow as used by the Little Andaman and other Jârawa tribes.

PLATE XXIV.

Dûe; Nicobarese outrigger canoe (Model of): with ornamental figure-head, *a*, (Kôî la Pû); topmast, (carrying pennant only), *b*; and outrigger pennant *c*; as used on festive occasions.

PLATE XXV.

Figs. 1, 1a. 1b. Karêau. Specimens of charms kept in the huts of the natives of the central and southern islands to frighten away evil spirits, &c.

- Fig. 2. Toddy drinking vessel.
 Fig. 3. Toddy strainer.
 Fig. 4. Kan-shait. A strip of the thorny stem of the rattan used as a grater for preparing the kernel of the Cocoa-nut and *Cycas Rumphii* for food.
 Fig. 5. Danang. Bamboo guitar or lyre.
 Fig. 6. Tanâp. Box (with lid) made of the spathe of the *Areca augusta* or *Nibong* palm; is in common use.

PLATE XXVI.

- Fig. 1. Kemîli. Fighting hat as used by the natives of the central and southern islands.
 Fig. 2. Kahâwat. Fighting hat made out of the husk of a cocoa-nut, as worn by the natives of the northern islands.
 Fig. 3. Fòin. Cross bow and arrow (*anhchaká fòin*) as used by the natives of the northern islands.
 Fig. 4. Bel. Bow and arrow (*anhchaká bel*) as used by children at all the islands except Car Nicobar and the southern group.
 Fig. 5. Hin-yüan. Wooden spear as used by the wild inland tribe (*Shòm Pen*) of Great Nicobar.
 Fig. 6. Miân mòm-ân'ya. Two pronged spear, used for picking up *bêche de mer*.
 Fig. 7. Miân lõe. ¹Three pronged spear, used for spearing fish by day, or by torchlight at night.
 Fig. 8. Shanen Kôpaton. Resembles the *Shanen Yanôma* (*vide* Vol. vii. Plate xiv, fig. 10) and, like it, is used only as a weapon when visiting distant villages.
 Fig. 9. Kan-shô'ka. Spear for harpooning turtles, ray-fish, sharks, and dugongs.
 Fig. 10. Shanô'ang dai larôm. *Pandanus* leaf head-dress worn by young men and women, both married and single.
 Fig. 11. Tî-nē'anga. Grating placed as a seat or platform in the bows of a canoe.

A collection of Andamanese bone necklaces was exhibited by Dr. Allen Thomson, who read the following paper on this subject:—

¹ For other varieties see vol. vii, pl. xv.

DESCRIPTION *of* ANDAMANESE BONE NECKLACES.

By Dr. ALLEN THOMSON, F.R.S., V.P. Anthropol. Inst.

THE use of necklaces and waist-belts made of human and other bones by the Andamanese, and the general nature of these as ornaments and memorials, are generally well known to all those who have visited or resided in the islands, and are referred to in most of the descriptions of the customs of their inhabitants; but I have nowhere found a detailed account of the materials of which the objects in question are composed, except it be partially in the descriptive labels affixed to the specimens presented by Mr. Man in General Pitt Rivers' Anthropological collection, as also in the interesting printed catalogue of its Andamanese and Nicobarese specimens.

The circumstance of my having obtained some years ago a number of the bone necklaces along with other objects illustrating the physical characters and customs of the Andamanese by their presentation through me to the Hunterian Museum of Glasgow University by my friend and former pupil Dr. James Reid, who has resided for a number of years at Port Blair, in the South Andaman Island, first called my attention to these necklaces; and I have been led to think that it might be of some use to endeavour to determine and to describe somewhat more in detail than has yet been done the osseous components of the necklaces and belts which I now exhibit to the Institute. Among these specimens, amounting in all to 48 in number, I am happy to be able to include, through the kindness of General Pitt Rivers and the authorities of the South Kensington Museum, a number of Mr. Man's specimens from that collection.

With one exception, that of a human lower jaw afterwards referred to, all the specimens are of a like kind, being formed of pieces of bone or other substituted material strung together on cord for suspension round the neck or other part of the body; one only being of such a size as to serve as a waist-belt. Of the whole number 28 are specimens sent to me in January, 1875, by Dr. Reid, and 20 belong to the Pitt Rivers collection, nearly a half of the last being from specimens recently brought to this country by Mr. Man.

It is to be observed, however, that all these objects are not constructed of bones; but a fourth of them are made up of other materials, such as slips of cane, palm-wood and so-called red coral, and they vary also according as they are simple or more or less adorned with various appendages consisting of small shells, most frequently strings of the tubes of a *Dentalium*. But in all these the form and arrangement are so obviously

similar to and in imitation of those which are constructed of bones, that the latter must be regarded as the fundamental or original form of the Andamanese necklace, and the others as substitutes for bones when these could not be procured. Indeed, in several instances, we find necklaces which are mainly formed of bones filled in or completed with one or more pieces of cane either in a regular or irregular manner. These spurious or non-osseous necklaces I have separated from those which are wholly or partially composed of bones. Among the latter I have also distinguished those which are obviously made of human bones from those in which the bones of animals have been used, and I have distributed the whole series, with some reference to this distinction and the nature of the bones, in a descriptive tabular form, with consecutive numbers, and under the following general divisions, viz :

I. Human bones ; probably chiefly memorial.

1st. Mostly determined.

2nd. Fragments. Some undetermined ; some may be of animals.

II. Bones of animals.

1st. Metacarpals, Metatarsals, and Digitals.

2nd. Vertebrae and Ribs.

III. Imitations in Wood, Coral (?), &c.

In the tabular description which follows, details will be given for each specimen, and at this place I will direct the attention of the Institute to the most prominent feature of the more remarkable specimens, and their signification and relation to the habits of the people.

The first ten specimens enumerated in the descriptive table are undoubtedly formed, chiefly or with very few exceptions, of human bones, and are probably of a memorial character, that is, containing bones which have belonged to deceased relatives or friends, and, according to the statement of Mr. Man and others, worn in remembrance of them, and sometimes also as charms against pains, sickness, and other evils.

I have placed first two specimens (Nos. 1 and 2) of the "finger bone" necklaces, as they seem to illustrate better than any others the general nature of these ornaments. The greater number of the bones in these two specimens are from the hands of adults, and among these the most favourite bones are those of the first finger joints, or proximal phalanges. Of these there are seven in No. 1, and five in No. 2. The other hand bones are metacarpal, chiefly the first or thumb one, and the fifth, probably on account of their size ; and in both specimens these hand-bones are supplemented by others of a different kind,—in the case of No. 1, with four pieces of human rib, of nearly the same

length as the digital bones; and in No. 2, with four digital bones of a turtle. The difficulty of recovering all the more suitable bones from the remains of the dead bodies, a task which Mr. Man informs us falls to be performed by the women, seems in many instances to have led to the adoption of expedients for supplementing them by means of other bones, and even, as will appear afterwards, by the substitution of other materials.

No. 1 may be taken as a fair example of the average length of the necklace, and the number and size of its component pieces.

The third specimen I have introduced into the series as an illustration of the custom which the Andamanese share with some other savage nations of wearing suspended to their necks the lower jaw or skull of a deceased friend,—as, for example, the skull of a deceased husband by the widow.

In the jaw shown from Mr. Man's specimens the knotted band is of the dimensions suited to serve for suspension round the neck of the wearer, and there is besides a profusion of ornament appended, formed of strings, 5 to 7 inches in length, of broken or entire shell tubes of dentalium (perhaps *D. ontogonum*).

The custom of carrying about the dried skull prevails among some of the Australian tribes; but there it is generally reduced to the cranium alone by the removal of the facial part, and it is often employed to hold objects, or as a drinking vessel, uses which, according to Mr. Man's statement, the skull is never put to with the Andamanese.¹

It would appear that among other tribes as well as the Andamanese, the lower jaw is also worn on the person. Of this we have an example among the inhabitants of Huon Gulf, New Guinea, in the lower jaw (Christy Collection, No. 9808), probably that of a woman, fitted to be worn as a bracelet with a worked band passing across between the condyles, and ornamented with suspended shell (*Cypraea*) and seed capsules.²

In the Christy Collection there is also another very interesting specimen of the same kind, brought from New Guinea by Professor Huxley, and stated to have been worn as a bracelet. This specimen is remarkable as having been that of an old person entirely toothless, but with the alveolar process of good breadth, and well covered over with smooth hard bone, indicating that during the life of the person it had still been in effective use. In this instance the arch of the jaw was closed by

¹ It is not my intention to consider here the various curious ways in which the skull is preserved in a more or less ornamented fashion by different nations, as in most instances of this kind the skull is not worn on the person of the living, but preserved in temples, houses, &c.

² For the opportunity of examining this and other specimens in the Christy Collection and British Museum, I am indebted to the kindness of Mr. Read, the Assistant Curator.

two clavicles lying different ways between the condyles and bound to them: and these clavicles appeared to be those of a female.

It may also be mentioned here that the lower jaw of a native dog (Christy Collection, No. 6947) is stated to be worn as a charm by the Australians of Cape York; while in the Admiralty Islands the painted skulls of turtles are hung up in the temples, and in the Louisiade Archipelago, the inhabitants of Brumer Island suspend round their necks a pair of the skulls with the bony part of the beaks of the wreathed toucan (Christy Coll.). Of this we have no similar examples among the Andamans.

The next specimens, Nos. 4, 5, 6, and 7 of the descriptive table, have especial interest as being almost certainly of a memorial character. The three first are all composed of bones or portions of bones which have belonged to children at or about the time of birth,—and which therefore are not completely ossified. No. 4 consists of several bones from the base of the child's skull, such as the basioccipital, the two exoccipitals, one petrosal, a basisphenoid, and probably a part of one alisphenoid, with a few less definite fragments, and seventeen nodules from the bodies of the vertebræ, all strung together in a certain order. In No. 5 there is one basioccipital bone of an infant similar to that in No. 4, and one left ischial bone; but all the remaining pieces are vertebral (42 in number) consisting of the half or ununited vertebral arches of one or other side, and eleven others which are nodules of the vertebral bodies. No. 6, again, is entirely composed of half vertebral arches from another child, apparently somewhat younger than those of Nos. 4 and 5. Of these half-arches there are 41.

No. 7 is also vertebral, but the pieces of bone are from an adult, and these seem all to consist of angular sections of the human vertebral bodies (cervical, dorsal, and lumbar) presenting at the two ends parts of the upper and lower articular surfaces of these vertebræ, and split surfaces along the sides where they are tied to the retaining cord.

The remaining three specimens of the first division, Nos. 8, 9, and 10, are composed of portions of ribs having the general appearance of those of men, and some of them in which the articular heads are present, undoubtedly human. And in these, as they must have been arbitrarily chosen, it may be right to notice that the number of the pieces varies from 10 to 13, and their length from about $1\frac{1}{2}$ to $2\frac{1}{4}$ inches. In No. 10, however, only seven of the pieces are formed of ribs, and these are combined with six irregularly shaped slips of other broken bones.

The nine specimens which are brought under the second section of the first division, Nos. 11 to 19, are perhaps of less interest than those previously referred to, as being formed of

broken fragments of bones in which it is difficult to determine exactly the source from which they have been derived. To the use of this form of component of the necklace the manufacturers have probably been reduced by the dearth of the more suitable entire bones. The shape of these pieces, made with the very imperfect tools of the Andamanese, is necessarily irregular and various, but they are all more or less elongated, and approach somewhat to the form of the pieces of rib. They are, however, frequently angular at the extremities. Most of them are formed of dense or compact bone, presenting the natural or outer surface of the bone on the remote side from the connecting cord, while the hollow or medullary side is next the cord. They are of such a form and thickness as to indicate their having been derived from such bones as the femur, humerus, or tibia. Others of the fragments seem to have been taken from smaller bones, such as the radius, ulna, or fibula, but all of them from the more dense shaft portion, though it would be difficult to determine their exact source, or whether all were really human.

Under the second division are brought those necklaces of which the bones are mainly if not wholly those of animals. In the first section are those composed chiefly of the bones of the fore or hind foot, and of these seven specimens, Nos. 20 to 26, six are principally or entirely from the turtle, and one only from a mammal. That specimen, No. 20, is of some interest from its consisting of the metacarpal and phalangeal bones of a hog,—an animal whose bones, according to the statement of Mr. Man, and others well acquainted with the Andamanese customs, are not used in the manufacture of the necklaces. There can be no doubt, however, that these bones, consisting of the metacarpal and some digitals, belong to an animal of the hog kind. They are from a young animal, and the epiphyses (distal) are absent; but it is impossible, from there being only one specimen, to say whether this example is to be regarded as exceptional or not.

Of the necklaces formed of turtles' digital bones, some, as Nos. 21, 23, and 25, are entirely of this nature. Others, as Nos. 22 and 24, are turtles' digital bones supplemented by other bones, such as caudal vertebræ of a mammal or split fragments, and one, No. 26, containing eleven turtles' digital bones, is supplemented with eight pieces of cane placed symmetrically four on each side. Two also of this set, Nos. 23 and 24, are ornamented with strings of dentalium shells, while the rest are entirely simple or without any such addition.

I have not been able to find that any other tribes of people have the custom of wearing bone necklaces, and especially those formed of digital bones in the same manner as the Andamanese.

The nearest approach to such a custom is that which is indicated by a specimen in the British Museum, dating from 1821, which is that of strings of digital bones, probably of the Polar bear, said to be worn as hair ornaments by the Esquimaux of Savage Island. The same people also wear small models of birds made of bone and strung together. The North American Indians wear strings of bears' claws having the last phalanges in them. And in the Christy Collection there is a remarkable specimen, No. 6127, consisting of a string of six astragalus bones with three intermediate pieces of hoof, and a long strip of polished bone drilled with six circular depressions, which is said to be used among the Basutos for divination, and is described in the Journal of the Anthropological Institute by Dr. or Mr. Sanderson.

There is also in the same collection a long string (4 feet 3 inches) of the cylindrical parts of birds' bones (probably radius and ulna) about 2 inches long, worn as a necklace at the Friendly Islands.

In the second section of this Division are brought together eight examples of necklaces formed mainly of the vertebræ and ribs of animals, or portions of them (Nos. 27 to 34). Several of these were stated to be made of bones from the wild cat or *Paradoxurus Andamanensis*; but they appear to me to be for the most part of a larger size than the corresponding bones of any skeleton of that animal which I have seen, and to approach more nearly, indeed to quite equal, the size of those of a fox or moderately sized dog. The caudal vertebræ are frequently employed in the construction of these necklaces, and from the number of bones of nearly a like size in one specimen it seems probable that they have been obtained from several animals. The portions of ribs are sometimes the vertebral part with the articular surfaces entire, and at other times the sternal part. And in two specimens, Nos. 32 and 33, there are several metacarpal and metatarsal bones of *Paradoxurus*, or similar animal, combined in the same necklace with the ribs.

No. 30 stands alone as an example of a necklace formed of the caudal vertebræ of the iguana. From its shortness (12 inches) it may have been intended to be worn by a young person.

We are not altogether without parallel examples among other tribes of the employment of animal vertebræ for personal decoration; as I find in the British Museum two examples of necklaces or some such ornament formed of animals' vertebræ. One of these is from New Caledonia, and consists of about 80 serpents' vertebræ, each nearly half an inch long, and strung together through the spinal canal.

The other consists of a string of the biconically hollowed discs which form the bodies of sharks' vertebræ, artificially perforated, and about 63 in number, brought from the Solomon Islands.

In the third division of the enumeration are placed those specimens of Andamanese necklaces, which being formed of different material from the bone ones, may be regarded as imitations of or substitutes for them. They are of two kinds, viz., of wood, which is either cane or palm, and of a kind of coral; but as might be supposed from their imitative nature, they are on the whole very uniform in their construction. This remark applies especially to those formed of cane and palm wood, and they require very little remark. To secure the hollow form of the pieces on one side with the due curvature and thickness, young plants seem to be selected for the manufacture of these pieces, and occasionally two slips are placed together when greater thickness was required. Most of these wood necklaces are simple; but in two examples, Nos. 41 and 42, four shells (*Neritina gagates*?) are appended by knotted cords; and in another instance, No. 45, a few strings of *Dentalium* have been added.

Of the necklaces formed of pieces of so-called red coral, in which numerous small pieces of the material are strung together on the same general plan as in the bone necklaces previously described, two at least, Nos. 46 and 48 (and probably also the remaining one No. 47), consists of portions of the stalks of a jointed *Gorgonia*, of which I have not ascertained the specific name, but which is very similar to some specimens in the British Museum. One of these is under the name of orange coloured branched coral from the Hainan coast, 1868. With this the structure, as seen both on the surface and in broken sections of the necklace, pieces exactly corresponds, and they are altogether different from the red coral (*Corallium rubrum*) of the Mediterranean. In the smaller specimen No. 46, parts of the joints are retained, while in No. 48 the pieces of which are taken from a considerably thicker stem, only the intermediate portions are present. It is curious thus to find portions of a natural object in itself not unlike strung vertebræ taken to imitate a collection of such vertebræ.

There appear to be some other tribes of people besides the Andamanese who make use of strings of portions of cane as necklaces, but all those I have seen have been formed of complete tubes loosely strung by a cord passed through the canal, and not fragments tied on the connecting cord after the Andamanese fashion.

In the foregoing fragmentary notice of necklaces or other

such ornaments formed of bone among other tribes than the Andamanese, I might, if time had permitted it, have made some reference to the employment of teeth for a similar purpose; but however interesting this might be, and closely allied to the subject of the present communication, I believe it would open up much too extensive a field of inquiry. All ethnological museums, indeed, present numerous examples of the most various and elaborate applications of teeth of all kinds of animals to the adornment of the person as well as to more useful purposes. The only remark which I shall make in regard to this is that in all the examples of necklaces made of strings of teeth which have come under my notice, with one single exception, the teeth are invariably perforated for the passage of the connecting cord, generally near the end of the root, and are not therefore tied on to a cord as the Andaman bones are. The exception to which I refer is that of a string or necklace made of the lower incisor teeth of a large ruminant from Australia contained in the collection of the British Museum.

Without a more intimate knowledge of the customs of the Andamanese people and the nature of the products of their country than I possess I could not venture upon any detailed account of the mode of construction of their necklaces. I must limit myself therefore to some general remarks on this part of the subject. As already stated there is a remarkable simplicity and uniformity in the plan upon which the necklaces are constructed, and a still more marked absence of any artistic skill or refinement, both of execution and design. In no case is any perforation of the material attempted; but the shape of the pieces or joints, whether natural or artificially produced, is relied on for securing the fastening by means of the finer string which is coiled round them and the connecting cord. Thus the bone pieces which are elongated and somewhat thinner, or which at least do not bulge in the middle, are best suited for the purpose of fastening. Those objects also which present more or less of a convexity on one side, and a hollow on the other are well adapted for the arrangement, as we have seen in the half cylindrical form of the finger bones, in the portions of ribs and in the caudal vertebræ.

With regard to other bones, such as those of the child's skull and vertebral bodies, which are not naturally adapted by their shape to be fastened to the connecting cord, we can only suppose that the great desire to preserve them as memorials according to a traditional custom has led those who collected them to disregard the difficulties opposed by their form.

In employing other materials than bone for the construction of the necklaces in imitation of those of bone, it is obvious

that objects would be chosen which, while they could be readily procured, had a general resemblance to the more approved forms, or could be easily fashioned into them. Hence the choice of the slips of the hollow cylinders of bamboo cane or of young palms and of the joints of the *Gorgonia* before mentioned.

In the binding of the bone pieces, &c., upon the connecting cord, there is generally interposed longitudinally between them slips of a bright yellow-coloured straw, which gives some variety of colouring to the specimens which are freed from the red clay with which most of them are smeared; but the use of such attempts at variation of colour it is difficult to understand when all differences of colour are completely obscured by the red clay or oxide of iron.

The small string used for binding the separate pieces to the connecting cord is of very uniform appearance and thickness, and does not differ greatly from the small twine of this country. The connecting cord varies considerably both in length and thickness as well as in the material of which it is composed. In most instances a portion of the cord of from six to eight inches in length is left free at each end beyond the bone pieces for the purpose of tying, and the ends are generally knotted. In other instances, and especially in those to which shells are appended, the ends are fixed together close to the bones, and some length is left beyond the fastening in a subdivided form for the attachment of shells or other objects. The cord is in general made of twisted vegetable fibre from leaves or bark, but occasionally for want of the usual material various substances are employed, among which even woven cotton cloth may be found twisted into the form of cords. Sometimes also British cord seems to be employed.

With respect to the dimensions of the necklaces and their component parts, as well as the numbers of the latter, while there are occasional variations, it will be seen from the Descriptive Table that there is on the whole great uniformity.

The whole length of the necklaces within the limits of the bony parts comes in 42 out of 48 described between 17 and 23 inches, giving thus a variation of 6 inches, corresponding to a difference of 2 inches in the diameter of the circles formed by them taken as from $5\frac{3}{4}$ to $7\frac{3}{4}$ inches.

The length of the separate pieces of bone or other materials is also on the whole very uniform. This might have been expected with the imitations in cane and the broken pieces of bone, the greater number of which are from $1\frac{1}{4}$ to 2 inches or occasionally $2\frac{1}{4}$ inches. In one case only where a small fibula was used has it reached $2\frac{1}{2}$ inches. And the size of the natural bones chosen does not in the main depart greatly from those now stated. But where vertebræ of small animals are employed, and in the

peculiar instances of the vertebral pieces of the child, very great differences are observed; and the same remark applies to the so-called coral imitations of these smaller bones.

It does not appear that there is any regularity in the number of the pieces, nor that any importance can be attached to their variations. Nearly three-fourths of the whole necklaces described have a number of pieces varying from 11 to 16. The smallest number in any case is 9. There is only one having a number between 20 and 29 pieces, viz., one having 23 pieces, there are six having between 29 and 44 pieces, and two only above the latter number, viz., one having 55 and another 80 pieces,—a circumstance which contrasts remarkably with what is found in the greater number of teeth necklaces, and still more in those composed of shells, ostrich shells, and manufactured materials in which the number of pieces is usually very great.

It may be further mentioned that the strings of bones I have described under the general title of necklaces are sometimes also worn as chaplets or head ornaments, and that some, such as No. 19, are adapted by their size for waist belts, and are actually worn as such: but these last, or ornamental girdles, are to be distinguished from the more common girdles or waistbands, made of dried leaves, bound together, and fitted with a bunch of cords or "bustle" hanging down from them behind, which constitute an essential part of the "dress or clothes" of the Andaman female (Dobson).

The difference among the necklaces and belts in respect of appended ornaments is also worthy of notice. In Nos. 3, 19, 23, and 24, brought by Mr. Man, there is a large quantity of strings of *Dentalium* shells; while in Nos. 41 and 42, obtained from Dr. Reid, four shells of *Neritina* are appended, and in one only of Dr. Reid's specimens are a few strings of the *Dentalium* tubes added.

It seems probable that these and other differences may be connected with a variation of the tribes to whom the objects have belonged, with regard to which differences, however, we are as yet imperfectly informed, but may expect fuller and more minute details from Mr. Man upon his return to the East. With respect to these necklaces it is also to be remarked that, as in the case of most objects of a like kind, they may now be manufactured by the natives for the European collector.

In conclusion, I have to return to Mr. Man in particular, and to Dr. Reid, Dr. Dobson, General Pitt Rivers, and others, my best thanks for valuable assistance and information connected with the objects shown to the Institute.

SHORT DESCRIPTION OF FORTY-EIGHT BONE AND IMITATION NECKLACES
WORN BY THE ANDAMANESE.

I.—HUMAN BONES, PROBABLY MEMORIAL.

1st. Mostly Determined.

Running Number of Specimen.		Museum Reference.	Number of pieces in each Necklace.	Length of Necklace within the tie.	Size of the pieces in each Necklace.	Nature of the cord on which the Bones, &c., are strung.
1	Ten adult human metacarpal and digital bones, with four pieces of rib, also human (seven first digital phalanges) Seven adult human metacarpal and digital, together with four digital bones of the turtle Adult lower jaw arranged for suspension by means of a knotted band, and ornamented with a profusion of strings of Dentalium shells Partially ossified bones from the base of the skull (6), and bodies of the vertebrae (17), and others doubtful (6), from a child at birth Half vertebral arches of a child at or about time of birth (42). One bone from the base of the skull of the same, and one ischium, with nodules from the bodies of the vertebrae (11) Entirely composed of half vertebral arches of a child at birth, or near it. Apparently younger than No. 5 Split angular pieces of different adult human vertebral bodies, preserving upper and lower articular surfaces Short pieces of human ribs, two with articular heads, and chiefly middle and lower ribs Pieces of human ribs, one a lower with articular head Seven pieces of human ribs, one with articular head, and six irregular narrow pieces of broken bone	R. 1	14	21 in.	$\frac{3}{8}$ to $1\frac{1}{2}$ and $1\frac{1}{2}$ to $1\frac{3}{4}$ in. $1\frac{1}{2}$ to $2\frac{1}{4}$	Strong cord made of twisted leaf or bark.
2		P.R. 46	11	17		
3		M. 105	1	band 22	4 in. across condyles.	Netted cord.
4		R. 2	29	17	$\frac{3}{8}$ to 1	Cord of twisted vegetable fibre.
5		P.R. 40	55	19	$\frac{1}{4}$ to $\frac{3}{8}$	
6		P.R. 39	41	18	$\frac{3}{8}$ to $\frac{5}{8}$	
7		R. 3	23	20 $\frac{1}{2}$	$\frac{3}{8}$ to 1 long and $\frac{1}{4}$ to $\frac{3}{4}$ broad	Strong twisted cord with thin knotted cords attached.
8		R. 4	10	19	$1\frac{1}{4}$ to $2\frac{1}{4}$	
9		R. 5	11	17 $\frac{1}{2}$	$1\frac{1}{4}$ to $1\frac{3}{4}$	Thin cord.
10		R. 6	13	22 $\frac{1}{2}$	$1\frac{1}{2}$ to 2	Thin cords twisted together.

I.—HUMAN BONES. PROBABLY MEMORIAL—(continued).

2nd. *Fragments of Human Bones, some determined.**Others not so ; may be of Animals.*

Running Number of Specimen.		Museum Reference.	Number of pieces in each Necklace.	Length of Necklace within the tie.	Size of the pieces in each Necklace.	Nature of the cord on which the Bones, &c., are strung.
11	Large angular pieces of compact and thick bone shafts, such as those of femur, tibia, &c.	M. 102a	9	17½ in.	1½ to 2½ in.	Moderately thick cord.
12	The same with many smaller pieces	R. 7	10	18½	1½ to 2½	Thick cord.
13	The same, the size varying much...	R. 8	11	20	1½ to 2½	Thin cord.
14	The same, also varying much in length and breadth...	R. 9	12	18½	{ length ¾ to 2½ } bh. ¾ to 1½	Thin cord.
15	Angular broken bones with some pieces of ribs	M. 102b	15	21½	1 to 1½	Thin cord.
16	Angular pieces of broken bones ; undetermined	R. 10	15	21	¾ to 2	Cords made of cotton-weave cloth.
17	The same	R. 11	13	18½	1½ to 2½	Thick cord.
18	The same, narrow and long ; all pointed at the ends...	R. 12	11	20	¾ to 2	Thin cord.
19	A waistbelt of large pieces of broken compact bones, profusely ornamented with strings of Dentalium shells	M. 102	29	30 + 10 overlapping = 40	¾ to 2	Strong cord.

II.—BONES OF ANIMALS.

1st. *Metacarpals or Metatarsals and Digitals.*

Running Number of Specimen.	—	Museum Reference.	Number of pieces.	Whole length within the tibia, or in the extent of the bones.	Size of the pieces composing the Necklace.	Nature of the cord on which the Bones, &c., are strung.
20	Metacarpals and digitals, &c., of young pig without the distal epiphyses	R. 13	15	19½ in.	¾ to 1½ in.	
21	Metacarpals and digitals of the turtle, &c.	M. 124	13	22	1½ to 2½	
22	Ditto, with two others, probably caudal vertebrae of a carnivore, and one piece of cane	R. 14	18	21½	¾ to 1½	
23	(Yá-di-tá-da) chiefly digitals of turtle, ornamented with Dentalium shells	P. R. 38	15	21½	1½ to 1¾	Cord made of wove cotton cloth, twisted.
24	Four digitals of turtle (Cháuga-tá-da) with eight irregular pieces of split bone, ornamented with Dentalium strings	P. R. 46 bis.	12	18	1½ to 2	English-looking cord.
25	(Yá-di-tá-da) all turtle's digital, simple	P. R. 38 bis.	17	20	¾ to 2½	English-looking cord.
26	Eleven digitals of turtle, short, probably of foot, with eight pieces of cane, four on each side symmetrically	R. 15	19	22	¾ to 1½	

II. — BONES OF ANIMALS—(continued).

2nd. *Vertebrae and Ribs of Animals.*

Running Number of Specimen.		Museum Reference.	Number of pieces.	Whole length within the vertebrae, or in the extent of the Bones.	Size of the pieces composing the Necklace.	Nature of the cord on which the Bones, &c., are strung.
27	Neural arches, whole or parts, of an animal the size of a fox or small dog; larger than the Paradoxurus.	R. 16	30	20½ in.	¾ to 1 in.	
28	Caudal vertebrae nearly of equal size, probably of several animals; larger than, but possibly may be, Paradoxurus.	R. 17	19	18	¾ to 1	
29	Ten or eleven caudal vertebrae, perhaps Paradoxurus. Also five or six cervical vertebrae, and three irregular pieces, perhaps atlas and other vertebrae.	M. 126	20	15½	¾ to 1	Cord formed of twisted leaf, &c.
30	(Diki-tá-da) caudal vertebrae of iguana.	P.R. 40 bis.	18	12	¾ to 1	
31	Four ribs of a carnivorous animal, rather large for Paradoxurus; also nine caudal vertebrae of same animal; upper part of a fibula, and two metatarsals.	M. 125	16	21	¾ to 2½	Twisted leaf or bark.
32	(Bai-an-tá-da) ten ribs of carnivorous animal like the last (Paradoxurus?); five of the ribs with articular heads, and four with ster-nal or cartilaginous ends; also two metatarsal bones.	P.R. 39	12	23	1½ and 2 to 2½	Cord very firm and strong of twisted leaf or vegetable fibre.
33	Ribs like the foregoing, apparently too large for Paradoxurus. Seven have articular heads; also a metacarpal or metatarsal, a fibula, and three irregular fragments.	R. 18	11	19½	1½ to 2½	
34	Ribs, broken pieces without articular heads. Too large for Paradoxurus, but too small for human.	R. 19	12	20	1½ to 1¾	

III.—IMITATIONS IN WOOD, CORAL (?), &c.

Running Number of Specimen.		Museum Reference.	Number of pieces in each.	Length of necklace with the tie of the cord.	Dimensions (length) of the pieces.	Nature of the cord on which the Bones, &c., are strung.
35	Pieces of cane, of uniform size, thick but single	M. 123	12	20 in.	1½ to 1½ in.	Twisted leaf
36	(Pawa-da-da) the same thinner; yellow straw-like substance tied in ¹	P. R. 41	11	17½	1½ to 1½	English-looking cord.
37	Ditto very uniform	R. 20	12	18	nearly 1½	Thick cord.
38	Ditto	R. 21	14	18½	1½ to 1½	Thick twisted cord.
39	Ditto	R. 22	16	23	1½ to 1½	Thick twisted cord.
40	Ditto	R. 23	11	16	1½ to 1½	Thin cord.
41	Ditto with four shells (<i>Neritina gigas</i> ?) attached, each one to a single cord from the united main cord	R. 24	15	20	1½ to 1½	
42	Ditto with three shells in the same way (a fourth lost)	R. 25	15	20½	1½ to 1½	
43	Slips of palm wood similar to those of cane; a little thicker	R. 26	16	22½	1½ to 1½	
44	Ditto very uniform in size and shape; thin and single	R. 27	14	20	nearly 1½	
45	Ditto ditto each double; a few strings of Dentalium affixed	R. 28	13	21½	1½ to 1½	Cord made of twisted cotton cloth.
46	(Bawa-da-da) long string of small pieces of so-called red coral, apparently joints of a branched and jointed <i>Gorgonia</i>	P. R. 43	80	41	¾ to ¾	
47	A shorter string of the same <i>Gorgonia</i> , or one nearly allied but with a singular resemblance to caudal vertebrae	P. R. 43 bis	44	17	1½ to 1½	Thin twisted bark or leaf.
48	Thicker pieces than in the last, with the same internal and superficial structure, but not showing the joints, as if they were the pieces between them	M. 127	33	22½	¾ to ¾	Thick rope-like cord,

¹ I am informed by Mr. Man that this substance is the yellow skin of an Orchid root, which is rather scarce and much esteemed by the Andamanese as a means of ornamenting their waist-bells, necklaces, &c.

Mr. PARK HARRISON exhibited a slate tablet covered with incised figures. It was found in 1879, at Towyn, on the coast of Merionethshire, under about 3 feet of sand. Mr. Harrison thought that the objects intended to be represented were principally axes and urns. But there were other figures, resembling celts, a shield, a suiste, a tunic, a casque, and some objects with handles that might be baskets. If these identifications were correct, the objects were all such as might have been interred with a chief, and, if so, the engraving would be a remarkable instance of the survival in a changed shape of the old custom of burying arms and domestic utensils for use in another state.¹

JUNE 14TH, 1881.

Major-General PITT RIVERS, F.R.S., *President, in the Chair.*

The Minutes of the last ordinary meeting were read and confirmed.

The following list of presents was read, and the thanks of the meeting voted to the respective donors :—

FOR THE LIBRARY.

From the AUTHOR.—Index to Papers on Anthropology published by the Smithsonian Institution, 1847–1878. By George H. Boehmer.

— Australian Aborigines. By James Dawson.

From the MUSEUM.—Archivos do Museu Nacional do Rio de Janeiro, Vol. III, Nos. 3, 4.

From the SOCIETY.—Transactions of the Literary and Historical Society of Quebec, 1880, 1881.

— Journal of the Society of Arts, Nos. 1488–90.

— Proceedings of the Royal Geographical Society, June, 1881.

— Proceedings of the Royal Society, No. 212.

— Journal of the Asiatic Society of Bengal. Vol. L, Parts 1 and 2, No. 1.

— Boletim da Sociedade de Geographia de Lisboa, No. 4, 2^a Serie.

— Mittheilungen der Anthropologischen Gesellschaft in Wien. Band X. Nos. 10–12.

From the EDITOR.—Revue Scientifique, Tom. XXVII, Nos. 22–24.

— “Nature,” Nos. 604–606.

¹ A description of the figures, with an autotype, &c., has since been published by Quaritch.

From the EDITOR.—*Revue Internationale*, No. 5.

— *The Scientific Roll*, No. 3.

— *Correspondenz-Blatt*, June, 1881.

— *Matériaux pour l'histoire de l'homme*, Tom. XII, liv. 5.

Major-General PITT RIVERS read a paper "On the Discovery of Flint Implements in the gravel of the Nile Valley, near Thebes." A discussion ensued, in which Mr. J. Campbell, Mr. J. Evans, Professor Boyd Dawkins, Mr. Rudler, Professor Flower, and Dr. H. Woodward took part, and the author replied.

Mr. ALFRED TYLOR read a paper "On the Human Fossil at Nice." In the discussion that ensued, Mr. J. Evans, Mr. Bouverie-Pusey, Professor Boyd Dawkins, Mr. Keane, and Mr. E. B. Tylor took part, and the author replied.

Mr. EVERARD F. IM THURN read a paper "On some Stone Implements from British Guiana," upon which Mr. E. B. Tylor, Mr. J. Evans, and the President made some remarks.

Mr. GERARD A. KINAHAN read a paper "On Sepulchral Remains at Rathdown, co. Wicklow."

Mr. J. H. MADGE read some notes "On some Excavations made in Tumuli, near Copiapó, Chili."

Mr. J. PARK HARRISON exhibited some Danish and French photographs.

The publication of the foregoing papers is postponed until the necessary illustrations can be prepared.

JUNE 28TH, 1881.

[*A Meeting held at No. 4, Grosvenor-Gardens, S.W., by invitation of the President and Mrs. Pitt Rivers.*]

Major-General PITT RIVERS, F.R.S., *President, in the Chair.*

The Minutes of the last meeting were read and confirmed.

The following presents were announced, and thanks voted to the respective donors:—

FOR THE LIBRARY.

From the AUTHOR.—*Genesis I, II.* By A. R. Grote.

— *La Biología en la Legislación.* By Dr. D. J. Valenti y Vivó.

— *Die Nationalökonomische Bedeutung der Afrikaforschung.* By Dr. Emil Holub.

From the Secretary of the ABORIGINES' PROTECTION SOCIETY.—The Basuto War.

— The Native Policy of the Dutch Boers.

From MAGYAR TUDOMÁNYOS AKADEMIA.—Almanach, 1881.

— Ertesítő (Akadémiai) 1879–7.8. (Bulletin acad.) 1880–1.8.

— Evkönyvek (Annales) XVI, 6.

— Ertekezések a társad. tudományok köréből. V, 9; VI, 1–5.

— — a történelmi — VIII, 10; IX, 1–3.

— — a mathem. — VII, 3, 6–18.

— — a termézet — IX, 20–25; X, 1–18.

— Liter. Berichte aus Ungarn, IV, 1–4.

— Ungar. Revue, 1880, 1–4.

— Monum. Archæol. IV, 2.

— Pesty, Eltűnt régi vármegyék, I, II.

— Torma, Repertorium.

— Pesty, Szörényi bánság, 1–3.

From the ROYAL DANISH ACADEMY OF SCIENCES.—Oversigt over det Kongelige Danske Videnskabernes Selskabs, 1881, Nos. 1–3.

From the SOCIETY.—Journal of the Society of Arts, Nos. 1491, 1492.

— Transactions of the Society of Biblical Archæology, Vol. VII, Part 2.

— Journal of the Asiatic Society of Bengal, extra number to Part 1, 1880.

— Proceedings of the Literary and Philosophical Society of Liverpool, Vols. XXXIII, XXXIV.

From the INSTITUTION.—Journal of the Royal United Service Institution, No. 110.

From the EDITOR.—“Nature,” Nos. 607, 608.

— Revue Scientifique, Tom. XXVII, Nos. 25, 26.

— Revue Internationale des Sciences biologiques, No. 6

— Education, Vol. I, No. 4.

The election of R. MELDOLA, Esq., F.R.A.S., F.C.S., was announced.

The PRESIDENT made the following remarks upon the death of Professor Rolleston :—

I think we ought not to commence the proceedings of this evening without some allusion to the great loss which this Society has sustained since our last meeting by the death of Professor Rolleston.

Anthropology, as most of the members are aware, was his chief study during the latter years of his life. His communications to this Society were frequent, and always valuable, and he often regretted that he had not more time to devote to it.

Amongst the more important papers which he read before the Institute, and which have been published in our Journal during

the last year or two, are the following: "On the Men of the Long Barrow Period," "On Excavations at Sigwell," and "On Human Remains at Cissbury," besides the part which he frequently took in our discussions, record of which has been published in our Journal, not to mention the assistance which he freely rendered to brother anthropologists whenever it was asked.

To him we are indebted for the only scientific description which exists of crania of the stone age in this country, those of Cissbury and of the Long Barrows. Although his early training made physical anthropology his chief study, Professor Rolleston was an anthropologist all round; in archæology and ethnology he took a deep interest and an active part. Archæologists were in the habit of submitting to him for identification animal remains found in excavations, where the date or place in sequence could be fixed, and from these he was gradually accumulating a store of information about the changes and distribution of breeds in pre-historic times, which, had he lived, would have led to important results.

But apart from the great services which he rendered to science, and anthropology in particular, those who knew him will remember him chiefly for his fine chivalrous character, his ready wit, his earnest love of truth, and his straightforward method of dealing with the affairs of life. Nor was there ever a man more ready at all times to do justice to others. A proper notice of him will doubtless appear in our Journal, but, in the meantime, I think I may safely say that in no Society has he left behind him a larger number of friends than in the Anthropological Institute.

The Right Hon. Sir H. BARTLE FRERE then read the following paper:—

ON *the LAWS affecting the RELATIONS between CIVILIZED and SAVAGE LIFE, as bearing on the dealings of COLONISTS with ABORIGINES.* By the Right Hon. Sir H. BARTLE FRERE, Bart., G.C.B., G.C.S.I., F.R.S., &c.

IN inquiring what are the permanent laws affecting the relations between civilized and savage life as bearing on the dealings of colonists with aborigines, the first question is that of *continued existence* of the uncivilized race. Is it possible for an uncivilized race to continue to exist as uncivilized, in the presence or immediate neighbourhood of a civilized race, equal or superior in numbers?

If they can, under what conditions and with what modifications is such continued existence possible or probable?

The possibility of such continued existence has been denied,

and with very practical results, as arguments for slavery and slave trade in the Southern States of the American Union—in East and South Africa and Brazil; and the examples of the Carib inhabitants of the West Indies—the North American Indians—and the Maories, have been adduced as recent proofs of the impossibility.

Let us look at the historical evidence on the subject.

In India it is clear that from the earliest immigrations of the Aryan races up to the present time, the civilized immigrants have always been in contact with uncivilized and more aboriginal races.

We find clear evidence of such contact, and of the warfare to which it led, in the earliest poetical legends of the contests between the gods and demi-gods of Hindu mythology and the demons and spirits of mountain and forest—whom it was the office of the heaven-born race to conquer or destroy. We see the battles and other events of the contests depicted in the earliest efforts of Hindu sculpture and paintings, and we find the contest still going on under the native dynasties which immediately preceded the British dominion in India.

And what has been the result?

The civilized Aryan immigrants have everywhere dispossessed their more aboriginal and less civilized predecessors of the lordship of the soil in the open and plain country, not always of the ownership and right of occupation as cultivators of the soil, but almost invariably of something more than the highest rights of sovereignty.

It is very rare to find in the plain open country of India any petty chief of any aboriginal race (I know but of one in the Deccan, the Berud chief of Serapoor), and there are no *great* chiefs or sovereigns of such races, though the oldest and most powerful of Rajput sovereigns cannot be formally and securely seated on his ancestral throne till the Bhil Headman has marked the Maharaja's forehead with blood drawn from the Bhil's own arm. Nor in old times could a Rajput or Maharatta fortress be built with any certainty in popular estimation, of permanence or safety, till the Headman of the Bhil or other aboriginal race—or his child, or some equivalent victim—had been buried under the foundation of a keep or corner tower.

These are intelligible indications of the popular belief that without the aboriginal agency the safety of the dynasty or of the edifice set up by the intruder cannot be assured.

As a general rule, in the open country the uncivilized aborigines, when subdued, were incorporated into the community organised by the intruding race, and were settled on the land, sometimes as cultivating serfs—sometimes and more frequently as

village servants—hewers of wood, and drawers of water—as Helots charged to clear away refuse and dead carcasses, to skin animals, and to undertake, with all its defilements, the preparation and manufacture of leather and of leathern articles of dress or use; and to perform other services which would defile their Aryan superiors. They are found in almost every village of the open country, as an essential part of the village organisation—but always as outcasts—living apart from the other villagers and generally outside the village area, forbidden to touch the purer races, who could not, however, live without their help, in their present condition of civilization.

There are often clear traces of successive conquests of separate races more aboriginal than the Aryan. In large village communities in the Deccan, for instance, the outcast races are never on one uniform level of inferiority. There are grades of outcasts as well as of the “twice born,” and one grade may not live, or eat with, still less intermarry with the others—the caste which removes and skins and buries the dead ox, may not intermarry with that which twists the skin into well-ropes, or makes the skin into leather, or the leather into shoes. There is much to justify the conjecture that each caste marks a separate conquest of some aboriginal tribe, each tribe having had its separate work assigned to it in the organisation of the village community.

This description applies only to the plain and open country. In the mountain ranges and forests we still find aboriginal races in sole occupation of large tracts from which the immigrant Aryans have never been able to drive them: Gonds, Koles, and Sonthals, Warlis, Bhils, and Naikras, Katkurris, Kulis, Dublas, and Ramoosis (Baruds) are examples of tribes apparently more aboriginal than Aryans, who have succeeded in maintaining a tribal, and almost a national existence in the presence of the Hindu invaders, and who still retain in their customs, beliefs, and language, and often in their physical characteristics, unmistakable traces of non-Aryan and probably pre-Aryan origin.

How did the Aryan contact, either in the way of incorporation in a village community, or by confining these aboriginal races to mountains, forests, &c., affect the social life and physical characteristics of the aborigines?

In the village communities it imparted a certain tinge of Aryan civilization to the aboriginal Helots. They generally lost their own language and acquired that of their conquerors. They gave up their nomadic habits, and settled down to live continuously in the same locality, and to cultivate the same fields. They acquired proficiency in some distinctive industries which were necessary to the village community, *e.g.*, as tanners, leather workers, shoemakers, &c.

They accommodated their own religious beliefs, more or less to fit into the dominant religion of their Aryan conquerors. The Tiger God, Wagya, became an incarnation of the orthodox Siva. Murri, the goddess of small pox, or cholera, was localised as a manifestation of the Brahminical Bowani or Kali, and generally the fetishism and demon worship of the aborigines was fitted into the nomenclature of the more philosophical Brahminical pantheon.

Physically some change took place, partly owing to changes in the conditions of life, such as the use of clothing, however scanty, and the habit of living in houses. All the Helot races, in the Deccan, for instance, are darker than the Aryan Hindus, but seldom so dark as the unchanged aboriginal races, and sometimes clear traces are to be seen among the Helots of crisped hair, rarely if ever seen in a pure Aryan race.

But there was little if any visible change from admixture of races, owing to the strictness of rules of caste. Intermarriage between a pure Aryan and a Helot was peremptorily and effectually forbidden. Concubinage was restricted within the narrowest limits, and as a domestic institution was rendered, by severe caste penalties, nearly impossible to any but men of high rank and great influence, and thus it happens that when all the Helot castes and sub-divisions of a large Deccan village are assembled, it is easy to recognise a general difference in colour and physical characteristics from one another, as well as from the various Aryan castes living within the same village.

In some cases, from various reasons, the changes caused in aboriginal tribes by contact with the Aryan races are less marked than in others. Thus the village Bhils and Ramoosis, and Mangs of the Deccan are less fixed to settled habitations than other Helot castes or races living side by side with them in the same villages. They more readily revert to nomadic life; and if it is reported in the Deccan that the Mangs or Ramoosis have left their houses in the little hamlets of Helots outside the village walls, and are living in temporary booths in the distant fields and jungle, the experienced Brahmin Administrator will look out for disturbances, organised gang robberies, prelude to insurrection. He will say, "It is always the way with these wild people! They are but evil spirits half tamed, or wild beasts, and will return to their lawless ways whenever the hand of Government is slackened."

There are scattered among the Aryan populations of the open plain country a few aboriginal tribes who have never been settled down in fixed habitations, and have not lost all traces of their aboriginal tongue. Such, for instance, are the Wuddars, who under various names are found as nomad quarrymen and

stonemasons throughout Central India, Rajputana, and the Deccan.

They are great proficient in their own crafts, but retain their own dialect, apparently of Dravidian origin, and a very curious communistic organisation, settling all matter of private as well as public import, from the movements of the tribe down to the marriages of the young men and maidens, and the division of wages, in full assembly of all adult males, where all except the parties directly interested may speak and vote, and from whose decisions no appeal is allowed to any other authority or tribunal.

They rarely and unwillingly accept wages as day labourers, and prefer taking task work or contracts to dig out a tank of a given acre and depth, to hew and carry stones of a given size and number, to build given lengths of wall of stone or earth, and they never fail to execute fairly a bargain so made. The proceeds are then divided, in full assembly, the weak and sick, the widows and orphans, all receiving their fair share of the gross earnings, the share being apportioned according to the opinion entertained by the general assembly of the deserts of the recipients or of their former bread-winners as contributors in times past to the general earnings of the community.

Such are a few of the effects on the aboriginal races of contact with Aryan civilization in the open country, where the aborigines have been effectually subdued and incorporated with their conquerors. In the hills and forests and elsewhere, wherever the aborigines have maintained a separate national existence, the effects of Aryan contact are less visible. Sometimes, as in Assam, the Hinduizing process has gone on gradually among the aboriginal tribes for generations past, and up to our own time; but in many cases there has been little visible change or improvement in civilization for centuries past, till the European Aryan with his roads and railroads, his uniform codes, and his centralised administration broke into the aboriginal reserve of Warlis and Bhils, of Sonthals, or Gonds, or Koles—and in half a generation effected more change than Hindu Rajas or Moslem Nawabs had effected for centuries before him. But space does not admit of more than a passing notice of such results.

It is clear from the written records, and still clearer from the sculptures and paintings of ancient Assyria and Egypt, that the highly civilized people of those countries were from the earliest ages in contact, and generally in conflict, with their uncivilized neighbours. That extermination of the uncivilized race, or at least of the whole adult male population, and the absorption of the women and children by the conquering race, so as practically to extinguish the conquered tribe, was a common result, is

also clear. But this result did not invariably follow. It appears to have been a usual policy of the Chaldeans, Assyrians, and Babylonians, as well as the Medes and Persians, to transplant whole colonies of one conquered race and settle them in the territory of another subject people—sometimes probably the colonies thus introduced were superior in civilization to those people amongst whom they were settled, and acted as civilizing military colonies—but the main purpose of the transfer was apparently simply to break up national ties—and to fuse the whole population of the empire into one submissive whole.

Occasionally, on the other hand, the less civilized race got the better of the civilized—and effected something more than a change of dynasty though they were sometimes absorbed into the conquered race. This seems more than once to have happened in Assyria and Babylonia, and the Medes and Persians were apparently far less civilized than the people they conquered.

In Egypt the Hyksos would appear to have been an uncivilized race as compared with the Egyptians—but in all these cases we know too little of the details of history to judge of the precise action of the one race upon the other.

Nor is much to be learned from the earlier history of Greece. That the Hellenic races, which achieved so rapidly a civilization in some respects unsurpassed as yet by any human family, were from the earliest times of authentic history always in contact with less civilized races, is clear, and also that the Hellenes were themselves inferior in civilization to the Phœnicians and Egyptians, the Assyrians, and other neighbours to the south-east and south of the Mediterranean—and drew from them much which was essential to Greek culture in its best time. But here, again, of the definite mode of action we know little.

Much more is to be learnt from the Roman history of every age. The tribes which formed the original constituent parts of the early Roman State were apparently in a state of civilization, much less advanced than their older neighbours, the Etruscans, who were gradually absorbed into the Roman commonwealth, and probably contributed more than any other single race to mould the Roman civilization of later days.

It is clear that, from the first, absorption and assimilation, and not extermination, was the usual, and apparently the chosen result of Roman conquest. The aim was extension of empire—not mere triumph over a national rival. Whether the people conquered were Jews or Egyptians or other possessors of an ancient civilization—or Gauls and Britons in a state of extreme barbarism—the object was always the same, though it might require very different and even opposite treatment to attain it. In the former case, when a civilized kingdom was subdued, steps

might be taken to bring to Rome somewhat of the arts, the literature, and refinement of the conquered people, but these were secondary objects, and were often aimed at no further than was needed to adorn the triumphal procession of the conqueror. The essential object was always dominion. The conquered country was to be bodily absorbed into the Imperial Republic or Empire with as little change as was consistent with safety—and apart from what personal vanity or avarice might demand, little need be taken from the conquered people, as long as the ruler bowed to the majesty of Rome, and was content to retain his crown as a vassal of Rome. Sufficient garrisons were placed in all posts of great strategic importance, but the form of government, and the framework and all details of internal administration remained unchanged, few additions or alterations were made, save those which were essential to the Empire. Regarding these the roughest Roman soldier seems to have had an instinct almost as intuitive and discriminating as Cæsar himself: as long as the people were content to act on the principle "We have no king but Cæsar" all might go on as under their own rulers, great causes and capital cases being alone reserved for decision by Imperial authority. Our own Empire in India, and that of the Manchus in China, are modern examples of the working of a policy akin to that of Rome.

An entirely different course was followed (though it was to secure the same object) when a rude and barbarous people were subdued. We could hardly have a better example than is afforded by the history of our own island. The Romans found Britain in a condition of civilization little if at all superior to that of the Zulus in our own day. In each province of the island, after the preliminary work of conquest by victory in the field, secure communication by means of military roads between carefully selected strategical points was the first care of the conquerors. Wherever the military detachments rested even for a single day, the post was appropriately fortified according to the best known rules of military art, and the fortifications of all points of permanent strategical importance were of a character to indicate that permanent undisputed possession of the country was the dominant idea of the conqueror. So wisely, with reference to the natural features of the country, were the lines of communications and fortified posts chosen by the Roman invaders, that the general direction of the trunk lines of Roman road will usually be found identical with those of our modern great lines of railway, the deviations being in most cases due either to natural obstacles which the modern locomotive finds more difficult to surmount than did the Roman Legion; whilst there are few natural ports, or natural centres of commercial transit, which are

not marked by the remains of Roman stations, so placed as effectually to command the communications and trade.

Of the results of Roman occupation on civil administration and on social and political life in Britain we have fewer remains, but they are sufficient to show how wise, with a view to permanent empire, was the policy adopted. The native chiefs and rulers were subsidised, and as far as possible Romanised—and apparently the details of local administration were conducted through them with the result of gradually settling and civilizing the barbarian British tribes who remained in the open country. The fiercer and more untameable tribes were pushed back into the mountainous regions of Wales and North Britain, and there shut in by good military frontier roads, communicating between strong fortified posts, the fortifications being sometimes continuous for long distances.

In the open country, administered under Imperial authority, great progress seems to have been made during two or three centuries in assimilating the social and municipal life of the people to that of the older provinces of the Empire. The remains of fortified towns with their baths and temples, of country villas which had evidently been the abode of leisurely and even luxurious civilized occupants—and other remains of the Roman period—concur with the somewhat meagre written historical records in showing that before the Romans left the island, life in Roman Britain had become at least as much assimilated to life in the older provinces of the Empire, as life in our colonies is to the English life of the present day.

(Let me note in passing that a system of securing military possession of the country precisely similar in principle to that adopted by the Romans in Great Britain was inculcated on Sir Harry Smith by the Duke of Wellington, when discussing the Kaffir War in which Sir Harry Smith was engaged; and the system so inculcated was practically carried out by Sir George Cathcart, whose volume of despatches from South Africa lays down a complete system for securing military possession of British Kaffraria, including the Amatola mountains, such as might have been dictated by Julius Cæsar or Agricola.)

The question, What was the result on the bulk of the native British population? has next to be considered.

There is much evidence to prove that the total population of the southern part of the island must have greatly increased during the Roman occupation. The greater part of whatever population existed was probably of aboriginal races, for except to retired soldiers or traders who had lived here previously, there was little to tempt emigrants from southern Europe or Greece to settle here, and till late in the period of Roman sway, we

hear little of any considerable immigrations or invasions from the eastward, from Germany or Scandinavia.

The Roman language had evidently been from the first the language of officialism and of the educated classes.

How far it had superseded the mother tongue of the aborigines in daily and domestic use it is difficult now to guess, owing to the numerous successive waves of large immigrations of northern races after the Romans left. The same may be said of the physical stock. Cornwall is evidently not the only English province which may claim a large amount of aboriginal element in its population. But to what extent the population of other provinces has undergone changes and additions similar to those known to have occurred in Cornwall during the period of recent history, it would be difficult accurately to estimate.

It is, however, clear that before the Romans left, so many of the aborigines had been civilized and educated as Romans, that men and women of British birth and Roman education were sufficiently numerous to be a recognisable element among the upper classes in Rome.

Space does not admit of more than a glance at the interaction of civilized on uncivilized races during the long period which elapsed between the time when the tide of Roman conquest began to recede, and the recommencement of a career of Eastern conquest by the Western nations about the time of the crusades. Western Europe had in the interim been overwhelmed by invading barbarians from the north and east. Occupying one province after another of the Roman Empire, immigrant conquerors became themselves gradually more or less settled, civilized, and Romanised, changed in religion and often in language, till they took the form of the modern nationalities of Europe, nearly as we see them at present.

The process seems in most cases to have been very uniform. Sometimes as successful invaders and conquerors, sometimes as allies or hired auxiliaries of the Christian ruler, the heathen uncivilized immigrants acquired the substantial power of the sword in a Roman province, learned many of the arts, adopted much of the civilization, and finally the religion of the conquered people, intermarried with, and settled amongst them without losing the uncivilized energy they had brought with them from the distant regions of the north-east. After a century or two they were a new people, with settled habits and national aspirations, wedded to the land of their adoption, determined to defend it and its institutions to the death, and as firmly rooted in the soil as if for the preceding centuries they had lived on it, and not been ceaselessly journeying westward from the original cradle of their race.

How, after many generations of rest, after the fermentation of new ideas in religion, in politics, in commerce, and in all the arts of life, the inspiration of foreign adventure again pervaded the people of Western Europe, and directed the swarms of emigration to distant lands, would take long to tell. We must pass over the many valuable lessons to be gathered from the painful but instructive history of the contact between civilized and uncivilized races in America,—Spanish, French, Dutch, and English,—as well as in Polynesia and Africa, Australia and Australasia, up to our own time, and come at once to the more recent lessons afforded by our experience in our own day, and especially in Southern Africa, to which I would at present mainly confine my remarks.

South African experience is, for many reasons, especially valuable in examining the present question, owing to the variety of races to which our experience relates. Of all these races I would remark that they seem to me to have been, when they first met with Europeans, descending and not ascending in the scale of civilization. None of them have any recorded history which could place the fact beyond the reach of doubt; such evidence as exists must be sought in language and legend, and scanty traces of migration, but all races bear some traces of descent from ancestors in a higher state of civilization than their modern representatives were when we first heard of them. This is especially the case with regard to their language and to such differences as exist between early and late immigrations of the same race.

1. There are the races which have apparently most claim to be considered aboriginal. The "Red," or "Yellow skinned men,"—the tawny complexioned races: Hottentots, Bushmen, Namaquas, remarkable for their generally short stature, broad and prominent cheek-bones, and for their peculiar languages, which have given rise to a controversy, as yet unsettled whether their affinities are with the Coptic, Berber, Galla, Ethiopic languages of Northern Africa, with the Finnish of Northern Europe, or whether they form a class apart, distinct from any yet known modern tongues.

Time does not admit of our entering into the discussion, but all who could wish to pursue the subject further would do well to consult the excellent article on "Hottentots" by Mr. Noble, Clerk of the Legislative Council in Cape Town, which will be found in the new edition of the *Encyclopædia Britannica* now in course of publication, where the argument will be found summarised with reference to the authorities Wallman—the Doctors Hahn, three in number—Tindall, Bleek, Kronlein, and others who have written at length on the subject.

Mr. Noble notes that the early Dutch travellers Kolben, &c., represent the Hottentots as mild, placable, ingenuous, affectionate,

hospitable, indolent, unenergetic. Their description of the personal appearance of the Hottentots is: body slender, well proportioned, small hands and feet, skin leathery brown, faces oval, projecting cheek bones; eyes dark, wide apart, deep set; nose broad, thick, flat; chin pointed, mouth large, thick upturned lips; hair in woolly tufts; beard scanty.

The women are described as held in high esteem among all the tribes of Hottentots, but they were made to do the hard work of the family—an oath by mother or sister was considered the most binding of any.

Polygamy was sometimes allowed, but was not common.

The early travellers could discover no traces of religion. The Hottentots were great believers in witchcraft, had a superstitious reverence for some insects and animals, for the moon and other heavenly bodies, and for the spirits of their ancestors, but their notions of a supreme being were very vague and contradictory, and they had no fixed belief in existence after death.

The Berg Damaras are apparently of Bantu origin, and in their physique hardly to be distinguished from the Damaras proper. But they have been conquered and enslaved by tribes of Namaqua origin and now speak a dialect of Namaqua, a very interesting instance of a change of language of which I know no other instance in South Africa.

The first question in this, as in other cases, relates to the continued existence of these races in the presence of civilization. I have been frequently assured by educated men in South Africa who had paid some attention to such subjects "that it was impossible nowadays to meet with a single man of pure Hottentot race." But I soon found on enquiring further that this was true only if it were meant that the man must be, not only of pure Hottentot race, but that he was unbaptized, and able to speak his own Hottentot language. I found that wherever there were many of the class popularly known as "Hottentots" or "Bastards," it was not difficult to find many individuals who, as far as could be learnt by personal examination, were of pure Hottentot parentage; but all who were baptized, and many who were not, had adopted Christian names, and generally Dutch surnames also, and were known as "off coloured boys" or "Darkies," regarding the name of Hottentot as a term of reproach; this is especially apt to be the case where a man has prospered, and acquired money, as many have; the language, moreover, rapidly falling into disuse, and now useful only among the Hottentots themselves, who almost always understand Cape Dutch.

The conclusion I came to at last was—that it was doubtful whether there were not, at this moment, more people of pure or

nearly pure Hottentot blood within 300 miles of Cape Town than there were when Van Riebeeck first founded the Dutch Colony. I was struck with the very small numbers of natives in each tribe as estimated by the early voyagers, and summing up the numbers of those tribes whose territorial limits could be defined, it seemed to me that there were now, within those limits, as many, if not more, people of apparently genuine and unmixed Hottentot descent, than there were when the traveller wrote. This will not appear surprising if, setting aside for the moment the theory that the race must be dying out, we consider the great area of country required to support a nomad population subsisting mainly by the chase, as compared with the area required to support the same numbers living as labourers on farms or vineyards.

The official returns as far as they go confirm this view.

The early Dutch travellers speak of the Hottentots as numbering about 6,000 souls.

Sir J. Barrow in 1798 estimated them at 1,500.

An official return in 1806 gave male Hottentots, 9,784 ; females, 10,642 ; total, 20,426.

In 1824	..	..	..	..	31,000
In 1865	..	..	..	..	81,589
In 1875	..	..	..	..	98,561

But in the earlier returns slaves of other races were apparently included, and many of mixed races included in the later official census, as Hottentots. Dr. Theophilus Hahn estimated the Namaquas at 17,000 in Great Namaqualand and Damaraland.

The point, however, as to whether the Hottentots of pure race in the Cape Colony are or are not dying out admits, I think, of being more clearly ascertained than by simple observation uncorrected by carefully collected statistics. It is useless to attempt any test by means of ordinary census returns, for few will register themselves as Hottentots who can possibly class themselves under any more respectable heading. But there are more than one of the large Moravian settlements specially devoted to the maintenance of Hottentots, and where the missionaries possess an unusual amount of knowledge of the personal history of their flock. Such are, Mamre, Gnadendhal, and others, at either of which it would be possible to obtain a fairly accurate history of the descent and other particulars of ethnological import—regarding probably two thousand of the people in and around the station. The enquiry should be made personally, in house to house visitation, by a competent scientific reporter, who is acquainted with some of the leading points to be investigated in dealing with the problems of Anthropology, with an eye for variations of physical features, and an ear

for language. Dr. Hahn, the zealous Professor of Chemistry in the South African College, Cape Town, has, I know, made such matters his study at Mamre, in the Malmesbury district, and with the aid of other members of the South African Philosophical Society would be able, I have no doubt, to throw much light on the subject. It would be desirable to enquire, in the same manner, regarding the births and deaths, and duration of life in each family selected, and to collect as much information as possible bearing on the vital statistics of the race.

I fear it will be found that, even if I am right in believing that the aggregate numbers of the race have not decreased since they came in close contact with Europeans, the rate of mortality among them will be found to be very high as compared with either the European, or with other African races. Measles and small-pox create terrible havoc among them, whenever they break out. Venereal diseases are abnormally frequent and fatal, and the destruction caused by spirit drinking is frightful, the race appearing to be unable to resist either the temptation to drink, or the ill effects of drinking, to a degree unusual even among savage races.

It is difficult to draw any very distinct line between Namaquas and Hottentots. But whereas the Hottentots are generally considered as confined to the old Cape Colony proper, the Namaquas form distinct tribes, more or less independent of Colonial control, and in Great Namaqualand beyond Colonial jurisdiction. Hence they afford a better field for ethnological study by the Anthropologist and Philologist. But they throw less light on the immediate subject of our inquiry, the laws affecting the relations between civilized and savage life. They have been sensibly receding northwards before the advancing colonists; and have come in hostile contact with the Damaras, a Bantu race, moving southwards and westwards, with whom they waged war, with varying success, till peace was restored, mainly through the intervention of the German missionaries. Damaras and Namaquas alike agreed to a modified English Protectorate, which led to the annexation of the port of Walwich Bay, and might have led to the settlement and partial civilization of the whole region between the lower Orange River, and the Portuguese frontier on the western coast, and from the sea to the Kalahari desert. But a change in the policy of the English Government has led to the withdrawal of the promised protectorate, and according to the latest advices, to the renewal of war between Damaras and Namaquas.

Between the Namaquas and the Bechuana tribes along the banks of the Orange River and its northern tributaries as far east as Basutoland, were found the Korannas, apparently an

offshoot from the Great Namaqua family, and mixed up with them, Griquas and Bastards, and other mixed races, whose chief interest to our present enquiry consists in the evidence their history during the past eighty years affords, that such mixed races, moving in front of the advancing wave of European colonisation, form tribes with a novel organisation of their own, partly European, especially in its official aspects, but claiming tribal rights and a national existence, on the same grounds and to the same extent as if they belonged to an ancient dynasty ruling over a tribe of historical importance.

Thus the Griquas, both of Eastern and Western Griqualand, are clearly of very modern origin, having grown up within this century from mixed and broken tribes, chiefly Namaqua, Hottentot, and Koranna, but with a considerable mixture of Bechuana and other Kaffir and negro blood, and some Dutch blood; with much Dutch and English training from missionaries and frontier farmers, traders, and Europeans of various kinds. Their principal chiefs generally trace back their pedigree to a grandfather, or great grandfather at furthest, who is known to have been in the service of some Dutch colonial family as slave, or hired servant. The possession of a few horses or guns by a man of energy and intelligence superior to his fellows was sufficient to found a chiefship, and to form the nucleus of a tribe which gathered round from waifs and strays of the Colony and broken border tribes. Sooner or later European adventurers appeared, and attached themselves to the chief, sometimes as traders, or as secretaries and advisers. If the chief was prudent and successful, he generally invited a missionary to settle with, or near him, and he seems always to have felt that his power was not firmly established unless he persuaded some European with less interested motives than the itinerant trader, or loafing adventurer, to throw in his lot with the new dynasty.

In a few years the new-fledged chief would have, besides his missionary and private secretary, his "Staats Secretary," who often were all Europeans, and in addition to his councillors, the indispensable appendages to any native chiefs, he had his "Raad," or legislature, and surveyors, and land registrars, and, in two instances, an elaborately written constitution, on the European model.

It may be owing to the incongruous materials employed, and perhaps to untoward circumstances, but none of these constitutional experiments have survived the original projectors, and in more than one instance, when the chief grew old, he recognised the instability of the edifice he had attempted to rear, and surrendered his power during his own lifetime into other hands.

Bushmen.—The following is the usual, and, as far as I was able to judge, accurate description of the Bushman race:—Small stature, $4\frac{1}{2}$ feet being rarely exceeded; dirty yellow-coloured complexion; Mongolian type of face; cheek-bones prominent, eyes deeply set; nose small and depressed; hair in woolly tufts; hollow back, protruding stomach; thick hinder parts; small limbs, and very small hands and feet.

Habitations—rocks, rarely huts; no cattle, and few dogs; arms: bows and poisoned arrows. No tribal unity. No chiefs. Language, monosyllabic, abounding in clicks, and having no numerals beyond two.

That the Bushmen proper are rapidly disappearing admits, I fear, of no doubt; but even in their case I have found generally much error in the popular estimates of their numbers, or even their continued existence.

In their wild state, every man's hand is against them, and up to the present time we hear hideous tales of their sufferings, and their being shot like wild beasts, and being reduced by want of food to cannibalism, in the difficult border-country where they still continue to live at large, in rocky and barren places, and in the thick bush which fills the ravines in the lower part of the Orange River and its tributaries.

As the large game disappears they are more often reduced to feed on the smaller wild animals, and even on reptiles and insects, the larger grasshoppers, and locusts, and ants affording them a frequent meal, and they are charged with occasional cannibalism in seasons of great scarcity. They are naturally unable to resist the temptation of stealing the sheep and cattle of the frontier colonists, and this propensity, joined to their reputation for using poisoned arrows, has so steeled the hearts of many border farmers, that to shoot a wild Bushman is hardly regarded as a crime in any but a strict legal sense.

Time does not admit of more than a passing allusion to their most interesting, and, in a philological sense, most important language; their marvellously spirited and accurate cave paintings and rock sculptures, and their utensils and weapons which have frequently a special interest as illustrating the use of stone concurrently with metal. Thus to pick up the surface of the soil, and prepare it for sowing, they still occasionally use a sharpened stick loaded with a round ball of stone at the thicker end, to give it weight and impetus; they still sometimes use arrows armed with neatly formed flint splinters, and I was told by a Damaraland trader, that he found in one place the Bushmen were frequent purchasers at the trader's wagon or store of bottles of cheap German scent. He enquired the object of such an unexpected taste, and found that the Bushmen had discovered

that the little bottles, thickened towards the lower part so as to hold the less fluid, could by a blow in a particular direction, be splintered so as to furnish excellent arrow-heads. He could not learn that the scent was valued except as a dram of strong spirit.

When captured or domesticated the Bushmen make excellent herdsmen, and often settle down as valued servants of the European farmer; but as they learn to speak Dutch, and lose the habit of using their own language, intermarry with other races, and improve in physique by regular and abundant food, they gradually lose some of the most characteristic features of their people, and merge into other races or denominations, becoming classed as Hottentots or Bastards, among whom an unusually irascible or violent temper, short stature, extraordinary aptitude for music, and for delineation of animals or human figures is often accounted for by attributing a Bushman origin to the possessor of these Bushman characteristics.

It is unnecessary to remind you of the invaluable labours of the late Dr. Bleek, and of his sister-in-law, Miss Lloyd, in noting and preserving record of all that concerns this most interesting race—their language, physical characteristics, arts, legends, and habits. I do not know that a more valuable contribution could be made to South African anthropology than by enabling Miss Lloyd to complete her researches by visiting the frontier districts where alone the Bushman is still to be found in his primitive state, and by giving to the world, by printing and publishing, the unpublished collections of Dr. Bleek, and the large additions to his "Papers on native African Races," which she has herself collected.

Mr. Stowe, the Geological Surveyor of the Orange Free State, is another most zealous and trustworthy labourer in the same field. His geological researches have frequently led him into the wild inaccessible country to which the Bushmen habitually retreat, and he has taken every advantage of his opportunities to record the results of his observations which will, I hope, be speedily published, and will be sure to form a most valuable contribution to South African philology and anthropology.

I may remark that we frequently hear of Bushmen in Damaraland, and in the country north and east of the Limpopo, and they are sometimes spoken of, in Damaraland especially, as living in larger and more settled communities than the Bushmen of the Drakensberg, as being of stature as large as the Namaquas, and able to smelt ore, and work it into ornaments and utensils, which they sell to their Damara neighbours. Whether or not they are true Bushmen, or fugitives and outcasts from other broken tribes called "Bushmen" from their wandering and wild habits, I could not ascertain, but it would be interesting to learn

more about them, as they are obviously a less scattered and wild race than the Bushmen of the Drakensberg.

Some of the people known as "Bushmen" in the Northern Transvaal are obviously Korannas, or other remnants of mixed races or broken tribes, but there may still be others of genuine Bushman race, as known to us further south.

The Bantu races, whether of the Bechuana, Kaffir, or Zulu families, are so well known that I need attempt no more than a very brief general description of the distinctive points in which they differ from the races nearest them in Africa. All are of a type clearly different from either the Hottentot or genuine Negro race. They are generally large of stature and well formed; of a dark brown bronze colour, very rarely black complexion, and by no means assimilated in any way to a negro type, good straight legs, with moderately large but well formed feet, fairly high in the instep, and rarely "lark-heeled" like the negro. The skull is generally more of the European than of the Negro or Malay type, with a broad and moderately high forehead. The lips and nose are thick but not negroid; the hair crisped and closely curled, but not woolly.

The skin is peculiarly free from hair or even down, and this especially when the skin is healthy and well nourished, and yet more when lubricated with fat and ochre, gives it a glossy appearance like that of bronze.

These are generally the characteristics of all families and sub-divisions of the Bantu races, but they differ much *inter se* in the degree in which such characteristics are marked.

There is much controversy as to which is the superior race in the great Bantu family, and I generally found that those who had lived longest among them were inclined to give the palm to that race with which they had been most associated. To my own eye the Gaikas, and Galekas, and some of the Zulus, afforded some of the finest specimens of the race I saw, but I would advise more accurate test by measurement and weighing before coming to any conclusion, and it would be well that the observer should note the pedigree of the examples he selects, for the national practice of "eating up" a conquered tribe, *i.e.*, slaughtering the older folk, especially the males, and all capable of fighting, but incapable of work, and absorbing all the younger women, and all the children into the tribe of the conqueror, leads to great confusion of race—and even a superficial observer may frequently note obvious differences among the inhabitants of the same kraal, and learn that the exceptional form or complexion may be accounted for by the presence of captives of other races who had been absorbed into the tribe, after their own had been "eaten up."

The chiefs are in general notably superior to their followers in physique.

There are very great differences in culture and civilization among the different tribes. The Bechuana tribes, including the Batlapins, Basutos, &c., seem by common consent of all observers to be placed at the head of the list; and from the observations of the earlier travellers, and of Burchell especially, it is clear that they were greatly in advance of the Kaffirs and Zulus in civilization when they first met the European travellers and colonists in South Africa; though, in their case, as well as in that of all other South African races, there is much to show that they have degenerated from a higher grade of civilization, rather than risen from a lower state.

Their language is one of the reasons adduced to prove that the Bechuana tribes belong to a later wave of immigration than others of the Bantu family. It has fewer "clicks" and Hottentot words, and other Hottentot elements, than the Zulu or Amakosa Kaffir. They have also among them a nomadic race of serfs (Balala), who are sometimes supposed to belong to an older wave of Bantu immigration, which was followed and conquered by later arrivals of Bechuanas.

In the arts of life—in smelting and working iron and copper, in agriculture, in building houses with many rooms, upright walls, and a sloping roof, the Bechuanas are far in advance of all the Kaffir tribes. They are most industrious, and more willing to adopt new habits and the improvements of civilized life.

The rule of the chiefs is less despotic, and the habit of congregating in large towns of from 5,000 to 40,000 inhabitants favours improvement and gives a better opening for the labours of the missionaries who have made so much progress in civilizing and converting some of the Bechuana tribes.

In religious belief the Bechuanas, when the missionaries first came among them, differed little from the other Bantu tribes, as we now find those who have not had much intercourse with Europeans. Except in the case of witchcraft, in some vague influences of ancestral spirits, and in omens, they had little definite belief. Of any thing approaching our conception of a Divine or creative power, of a soul as distinct from life and intellect, of spiritual existences—they were sceptical. They were, in fact, materialistic Sadducees.

It would take long to tell of the changes effected by the teaching and influence of the missionaries, especially those of the London Missionary Society, who have laboured among the Bechuana tribes.

I doubt whether five centuries of Roman dominion, and of the

preaching of early Christian missionaries, did much more to civilize and elevate the savage inhabitants of our own island, than has been effected by seventy years of the labour of men like Moffat, Livingstone, Thompson, John Mackenzie, and Hepburn, among the Bechuana tribes. Let any one contrast the accounts given by humane and observant travellers like Burchell, with what may now be seen in the country between the Vaal and the Molappo, or north of that to the northern confines of the Christian king Kama, of Kamangwato, and he will be able to appreciate the difference.

Unfortunately, as in Ancient Britain and everywhere else, so in Bechuanaland, the progress of civilization has inevitably sapped the authority of the barbarian tribal chief, and the absence of any temporal substitute threatens to produce the same anarchical condition which followed the withdrawal of the Romans from Britain. Threatened from the north by the Matabele Zulus, and from the east by the advancing Trek Boers, the Bechuana, both chiefs and people, have in vain prayed to be taken under the protection of the British Government.

The British Government has repeatedly declined to accept the allegiance, and time alone can show whether some chief or adopted foreigner will arise with the genius and energy needed to repel foreign invasion, and to preserve order in the country, or whether the Bechuana will be subdued, and absorbed or annexed to some other Power, or be driven on to resume the ceaseless slow migrations in front of more powerful tribes pressing on them, which seems to have been their dreary lot for ages before they fell in with the white men advancing northward from the Cape of Good Hope.

In the other and less advanced branches of the great Bantu family there is much difference in the civilization of various clans, as they have been more or less under the influence of their European neighbours.

In almost every case the impression given by the earliest European observers is that of the extreme savagery of the race as first known to European visitors. Making every allowance for prejudice, and for other circumstances affecting the judgment or competence of observers, it is impossible to read the accounts given by Sir William Harris, Captain Alan Gardiner, Isaacs, and many other competent and by no means unfavourably biassed travellers, without being convinced that the normal state of most of the Bantu tribes who did not belong to the Bechuana family, as apparent to the early European observers, was one of extreme barbarism.

It is often stated, but, as far as I know, entirely on the evidence of unsupported oral tradition, that there was a time not

much anterior to the appearance of Chaka, as founder of the Zulu power, say seventy years ago, when the regions now known as Zululand and Natal were the abode of a simple, peaceful, primitive people, living a pastoral life, in small tribes, under independant chiefs, seldom going to war, and when they did quarrel, settling their disputes by a formal fight in battle array, which decided the question of relative supremacy, without leading to prolonged hostilities or disturbing the generally neighbourly relations of the clans engaged. The picture is a pleasing one, but not consistent with known and undoubted facts, and I fear must to a great extent be classed with the poetical histories of a golden age in other parts of the world. There can be no doubt that, eighty years ago, the country in question was very sparsely inhabited by small tribes, which were slowly moving southward and eastward, along the coast regions, between the sea and the great ranges of which the Drakensberg is the best known, and that the country was full of elephants and other large game to an extent incompatible with the presence of numerous or strong tribes.

There seems no reason to doubt the story of the origin of the Zulu power—that a petty chief and fugitive from his own country, passed some years in the frontier provinces of the Cape Colony, and there learnt something of European discipline, which he carried back with him to his own country, and used to subdue neighbouring tribes, establishing something like a kingdom. He left, however, each tribe as it was subjected, under the rule of its own chiefs and headmen, a humane mistake, as it seemed to his successors, leading to a conspiracy against him, and to his own assassination. His favourite lieutenant, Chaka, resolved to correct this mistake, and introduced the custom of assimilating each conquered clan, and absorbing it into the conqueror's own tribe of Zulus. This was effected by slaying or putting to flight all adult males who were likely to be incorrigible upholders of their own tribal rights, and the absorption of the younger males and females into the ranks of the victors. This policy was consistently followed, with some variations of energy and success, by Chaka and his successors, Dingaan, Panda, and Cetywayo. It was effectual in welding all the conquered people into one nation, though the assimilation and extinction of separate rights was more perfect in the case of some tribes than of others. As a rule the centralization of authority, the destruction of separate tribal influence and of the power of the tribal chiefs, was very complete. The fighting men were organised in regiments instead of tribes. Each regiment was made to consist of a mixture of various tribes, the warriors being chosen rather for equality of age than for

similarity of origin, and commanded by a chief, chosen by the king for his valour and devotion to his sovereign rather than for his descent or tribal connection. The system was of course not always carried out with unvarying exactness and completeness, and occasional concessions were made to local and family influence, so that the regiments became more like a local militia under command of the local chief, than a royal battalion under the centralised authority of a commander selected by the king. But the general result was effectually to substitute centralised royal authority for tribal allegiance.

When and by whom the important change was made, which substituted the short stabbing Zulu pike for the assegai or light javelin, whether by Chaka or his predecessor, is not agreed. It was probably Chaka, who certainly carried to perfection the stern discipline, which, with the use of the short pike, made it the invariable duty of the Zulu "impi" to come to close quarters as speedily as possible, after their enemy was aware of their proximity, and to overwhelm him with a mob of warriors who showed no quarter, and were determined to conquer or die.

There are many Zulus yet living, and in active possession of all their faculties, who were warriors in Chaka's impis before they had learnt what defeat meant. They are within reach of Sir Theophilus Shepstone, of the Hon. Chas. Brownlee, and of surviving members of the brave band of Trek Boers and Englishmen, who remember the days when under Dingaan the Zulus suffered their first repulse. If some of these gentlemen could be induced (and no men are more competent than those I have named) to take pen in hand and note down their recollections of what they have seen and heard of the half century between 1830 and 1880, they would furnish a record of great historical and military value. How Chaka organised, armed, and dressed his battalion for parade and for the field, how he mustered and exercised them in peace, and fed and marched them in war;—how they were trained to irresistible attack, regardless of wounds or certain destruction;—how their conduct in action was scrutinised and conspicuous bravery was rewarded;—how at the grim assize of the "coward's tree" cases of misconduct and failure in duty were heard and punished with instant death;—how Chaka's system was modified by his successors, especially by the introduction of firearms,—these and all cognate topics are matters of great military importance, and an accurate record of them would furnish many a useful hint to the military reformer or organiser of the present day.

Not less valuable would be the record of the experience of the Trek Boers. The history of the Bloody Sunday, of the

massacres of Weenen, Bushman's river, and of Blaauwkrantz, when hundreds of men, women, and children were surprised and slain by Dingaan's impis, all these afford something more than material for a tragedy or thrilling romance. The history is full of instruction how to defend and protect peaceful agriculturists within reach of savage neighbours.

Again, how the Trek Boers, never mustering a thousand guns, finally defeated Dingaan's tens of thousands of unconquered warriors;—how the Boers never moved camp till they had scouted the country for ten or twelve miles on their purposed line of march;—how they moved with their mounted fighting men in pairs (the Boer and his "Achter Ryter" with his spare firelock), thrown out in advance and on each flank for a distance of four or five miles in every direction;—how at the slightest alarm of a body of the enemy in sight, the wagons were closed up or moved into "laager";—how the wagon "laager," with more women and children than men inside it, was rendered as impregnable as a British infantry square at Waterloo or Ulundi;—how the wagons, parked so as to protect the oxen as well as the people, were fenced with brushwood and skins, so as to be impervious to a rush of pike men;—how the women and children helped to load the cumbrous "roer" or elephant gun, and, if need were, sometimes with hatchet or knife, defended the wagon from Kaffirs creeping in through unguarded loopholes, these and many other details have a romantic interest for all readers, but they contain many valuable lessons for the military student, even when he has to imagine earthworks in place of wagon "laagers" and firearms with a range of 2,000 yards in place of "Brown Bess," good for a hundred yards, or the assegai of little effect above thirty.

It would take some time fully to describe the effects of the growth of the Zulu power on their neighbours, but there are three or four movements of the population which must not pass without some notice, however brief.

1. The first is the emigration of Moselekatze, an account of which, by a nearly contemporary observer, will be found in Harris' "Wild Sports in South Africa."

It is, I have been informed on the authority of Cetywayo, the modern Zulu belief that Moselekatze was despatched by the Zulu king to "eat up" a Bechuana tribe beyond the Drackensberg—that he succeeded in his enterprise, but, instead of returning, as ordered, to the Zulu capital with his plunder and captives he marched on northward and westward, through what is now the Orange Free State and Transvaal, destroying and "eating up" tribe after tribe of comparatively peaceful and civilized Bechuanas, by whom that part of the Transvaal was then densely

occupied, annexing their cattle and younger captives, and slaughtering their warriors, whose bones were still visible in heaps when Harris visited the country.

Harris found Moselekatze not far from where Rustenberg is now, fully established as an independent sovereign, having earned the surname of the "Attila of South Africa," the scourge of Bechuanas and of the advanced guard of the great emigration of Trek Boers, who have since occupied the country Moselekatze had passed through on his move from Zululand. He seems to have felt that between the advancing Trek Boers and the Bechuanas who had come under some sort of European influence through the missionaries at Kumman and in the Griqua country, he was likely to find more than his match, and moving northwards and eastwards he finally settled with his followers, as the "Matabele," in a rich tract of country which was very sparsely inhabited, on the highland which separates the basin of the Limpopo from that of the Zambesi.

2. A very different emigration was that of the people now known as Fingoes, who appear to be the remnants of various tribes which in Chaka's time occupied what is now the western part of Natal and Zululand. I have seen men now living who remembered their old homes, but it is difficult now to identify either the original locality or the exact tribes to which they belonged, and which seem to have been "eaten up" in the early wars of Chaka, probably even before his time. We first hear of the Fingoes as a miscellaneous collection of fugitives from Zulu conquest—broken men and fragments of clans moving slowly westward and southward, continually harassed by the unbroken tribes through whose country they passed, till they found a comparatively safe refuge as Helots of the Gaikas and Galaekas, and other tribes of the Great Amakosa family.

From an early period of their wanderings they seem to have cherished hopes of protection by the Government of the Whitemen, whom they found moving in the opposite direction towards Natal, but it is less than thirty years since they were formally received as British subjects, and settled, some on the Fish River and its tributaries, and others in various parts of the country taken from Gaikas and Galaekas between the Kei and Umtata. They were at the time in a state of the utmost destitution, often obliged to content themselves with husks of maize and large leaves sown together to cover them, and reduced for want of regular food to support themselves on roots and wild berries.

Since that time they have prospered wonderfully, and are now rivalling the Bechuana, as an industrious, improving race.

If any one doubts the capacity of the Kaffir races for improvement and civilization, such doubts would I feel sure be removed

by a visit to the Fingo settlements. The visitor would hear from the people themselves the state of utter barbarism to which they had been reduced when they were first met by the missionaries, Messrs Ayliff, Warner, and others, and taken under British protection. He would see in the villages of headmen, like Veldtraan, farmhouses and orchards which would do no discredit to an English yeoman, and he would find in their tales of how Captain Blyth ruled and advised them, and in the schools they have erected in Captain Blyth's name, at Blytheswood and elsewhere, the evidence of how the improvement—material, intellectual, and moral—has been effected.

3. There was another emigration of Zulus into what is now known as Umsilar country. Less is known of it than of Moselekatze's, or of the Fingo emigration, but Umsila's people say they were Zulus driven from Zululand, early in Chaka's time, and after many wanderings settled on the coast some hundred miles north of Delagoa Bay.

4. There is yet a fourth emigration consequent on the formation of the Zulu kingdom, which is probably as numerous as either of the others, I mean the emigration from Zululand into Natal.

When the territory which now forms the Colony of Natal was first visited by the Trek Boers, the country away from the coast was nearly void of inhabitants, a few broken tribes occupied, with the elephant and buffalo, the clearer portions of forests in the warmer and more fertile sea coast; but there were vast tracts nearly uninhabited, and hideous stories are still told of men who, within living memory, were reduced to cannibalism from want of other food.

The country had been laid waste by Zulu "impis"; some of the people who escaped massacre had been carried off to Zululand to swell the numbers of the Zulu tribes to which their conquerers belonged; others had fled and joined the retreating hordes of Fingoes; the country from the immediate low-lying sea coast to the Drakensberg, and often beyond, was practically without any settled inhabitants.

No sooner was the boundary of the British territory fixed, and the English flag hoisted in Natal, than the Zulus, as well as the races they had subjected and incorporated, discovered that the rule of the white man was infinitely easier than that of the Zulu king, and a steady tide of migration across the border set in from Zululand into Natal, which has never since stopped. Sometimes after a contest for the succession or other cause for internal war, the influx into Natal would be by thousands at a time, but more frequently it was by single individuals or families at a time.

So far from the movement being encouraged by the English authorities, every effort was made to check it. At first, before the Colony was formally declared British territory, the threatening remonstrances of the Zulu ruler were met by the promises of extradition. But the shocking fate which was found to await returned fugitives speedily led to a refusal by the British officials to give them up, and had it been otherwise the vast extent of open waste and forest would have made it practically impossible to follow up fugitives.

But up to a very recent period no man was allowed to bring over any property: he could only be received as he stood, and if he brought cattle with him, they were sent back by the British officials to the Zulu king whenever demanded. The new comer was required at once to find some older resident in Natal to answer for him, as not being an habitual vagabond, and within a very short period he must find the means of paying an annual hut-tax.

That under such discouragements the migration should have assumed very large proportions, shows how great must have been the desire of the Zulu population to escape from the military service and arbitrary rule of their own king. If I may judge from the cases in which I was able to examine the Zulu immigrant personally, there was no temptation to move other than the greater security of life and property. Such wages as the immigrants might earn in Natal would have been equally paid had they remained Zulu subjects with a home in Zululand, and other temptation there was none. In one case an old headman who had been contrasting the charms of his old life in Zululand with the humdrum laborious life he led in Natal, in reply to my question, "Why did he remain in Natal, when he was free to go back, and had acquired ample cattle wherewith to propitiate the king?" answered, "Here in Natal I sleep in peace with my wives, children, cattle, fowls, and mealie store about me, and when I have paid my hut-tax, no one asks me for more. I don't awake if the dogs bark. In Zululand, if the dogs barked at night, I ran and hid myself in the bush, for I did not know whether it was not a message from the capital to take an ox, or a girl, or to kill me because I had been smelt out by the witch-doctors." The extent of these emigrations from Zululand is a sufficient proof of the extraordinary vitality of the races which form the population.

There has been little foreign conquest or absorption of outside tribes since Moselekatze left Zululand to form with his followers the nation of Matabele Zulus. The Fingoes are now numbered by tens of thousands, and the native population of Natal has increased, mainly by immigration, to probably close on 400,000.

We can but cursorily glance at the changes which have taken place in the other great branch of the Bantu family, the Amakosa Kaffirs, since they came in contact with Europeans.

We first hear of them at the end of the last and beginning of the present century as encroaching on the Colony, and pressing back the Hottentot tribes in the neighbourhood of Algoa Bay. They do not, however, seem to have settled much permanently south of the Bushman's river. From that time to this the history of our intercourse with them is a history of continued collision between the frontier farmers and the native tribes. Cattle thefts and reprisals leading to a savage and generally little expected outburst of hostility—a tedious war, and a truce or peace of exhaustion is the usual history—the Kaffir tribes being invariably forced back, and a hollow settlement effected, sometimes with an attempt at improved border arrangements, or at the establishment of a neutral zone, but never with the result of doing more than delay a renewal of hostilities, as soon as the memory of what the frontier tribes had suffered in war began to grow dim.

The Colonial frontier has steadily advanced from the Liesbeck brook, or Salt river in sight of Cape Town, which was its boundary when the Dutch first established themselves; it gradually advanced step by step to the Zwartkop river beyond Port Elizabeth, and then by successive but rapid steps to the Bushman river, the Fish river, the Buffalo, the Kei, the Bashee, the Umtata, till now it has practically reached the frontier of Natal, and the most independent of Amakosa Kaffir chiefs has no really sovereign authority, except what he exercises through the permission, or by the insouciance of the British Government. I am not now speaking of rights or constitutional claims, but of practical results.

What has been the result of the proximity of European Colonists as regards the native tribes? And first as to numbers.

In the absence of reliable statistics we are left more or less at the mercy of fallacious personal observation and memory, and I found great differences of opinion among experienced and observant men, as to whether the natives in the aggregate had increased or decreased in numbers. Some opinions were very decided that within living memory there had been great decrease in the aggregate of Kaffir population; but the result of the most careful inquiry I could make satisfied me that any aggregate decrease was certainly not proved. In particular localities, it is true, it was often possible to prove a decided decrease. There had often been a dispersion of large well-known and populous kraals. There had been wholesale removals of all members of particular tribes to other distant parts, and

sometimes over a whole district which we are assured formerly "swarmed with Kaffirs," few are to be found. Such facts, of course, are in favour of a theory of aggregate decrease of population. On the other hand, the number of Kaffirs settled, two or three families together, on separate farms, in various parts of the country, is probably much larger than it was; there is a considerable population in native locations of large towns, and living as labourers in kraals around them, where formerly a Kaffir labourer was seldom seen; extensive districts which formerly were almost uninhabited now contain a large native population. This is notably the case in Pondoland, in much of the old Galaeka country, and in Griqualand East or Adam Kok's country, till lately known as Noman's land, and almost tenantless.

In no part of the country is there apparent any evidence of a decaying population. When a whole family is mustered, there is generally seen an ample proportion of healthy children of all ages around the parents, and there is every apparent evidence of a population increasing rather than dying out.

But we may hope that at no distant period a fairly accurate estimate of actual numbers of the native races may be obtained by census, and place this question of numbers beyond a doubt.

As regards other effects of European proximity on the Amakosa Kaffir, in other respects than as regards numbers, opinions are much divided. It is not uncommon to meet men of great experience and extensive observation who are very positive that the race is deteriorating. It is not easy to obtain direct and conclusive evidence on such points, but I am bound to say that I have never been satisfied with the reasons I have heard adduced for the belief. The assertion that "one never sees the magnificent savages one used to see with Hintza or Macomo in former days when I was a young volunteer in the Kaffir war," may be accounted for by other reasons than deterioration of race. The henchmen of the great Kaffir chief of forty years ago, ready to support their leader in the field, or amuse him in a war dance, were doubtless more striking figures than the old men who adhere to his shrunken fortunes and degraded state in these days, and something may be due to the enthusiasm of a youthful observer, as compared with satiated observation of the grave and reverend senior—*laudator temporis acti*. Other reasons of the supposed change will be intelligible to any one who has noted the difference between a diminutive Oriental in the unbecoming dress of an European, and the same slight figure clad in the flowing and becoming garments of Moslem or Hindu. Nothing can be more picturesque than the bronze complexioned limbs of a young Kaffir warrior with his red blanket thrown

around him. Few figures have less of the picturesque about them than the same warrior bent with the weight of three score years and ten, and clad in the costume of an English rat-catcher.

Certainly any one who sees the ordinary Kaffir labourer of modern days, divested of his usual European dress, either at work on the beach of Port Elizabeth or driving game on a hill side, or basking in the sun outside his kraal, will find it difficult to credit any serious deterioration of race.

This question is, however, one of those which admit of more accurate test than vague recollections, and casual observation of years gone by. If a few competent observers would carefully record the measurements and weights, as well as photographic portraits of typical specimens of the Kaffir population in well selected localities—such, for instance, as a tribe entirely removed from European habits and influences—a tribe in whose territory the trader, the missionary, and the European Colonist have been long established, and the communities of native workpeople at towns like Port Elizabeth, Durban, or Kimberley, they might establish a basis of sound facts for future comparison.

Regarding the physical effects of European clothing on the natives who had been used to little clothing of any kind, and that worn loose like a blanket or kaross, there has been much controversy, and the leading theories and the few facts supporting them will be found recorded in some useful papers by Lovedale and other students and teachers, and in the religious periodicals to which they are in the habit of contributing.

There can be no doubt that in South Africa, as in other countries where an uncivilized people used to scanty clothing have adopted close-fitting European garments, as a part and an evidence of civilization, there is a very general belief that the change often leads to an increase of pulmonary and other diseases. There can be little doubt of the fact that such increase of disease is observable and is easily accounted for, when, as often happens, the garments of European fashion are worn with little attention to European customs, and still less to European notions and rules of health in matters of clothing.

The native wearer has been used to little, if any, tight fitting clothing. He buys a suit of close fitting woollen clothes such as are worn by European workmen, and wears them partly as a matter of fashion, and partly because the police regulations require him to be decently clothed whenever he goes to work in town. He wears them all day, perhaps whilst hard at work, and during possibly a long hot fatiguing walk out to his own kraal; arrived there he throws them off, and of course is exposed to the effects of a sudden chill; or it some-

times happens with probably even worse results he gets wet through, and lets his thick woollen clothes dry on him.

The subject of a pattern of decent clothing which shall be better suited to native customs than our close fitting garments has engaged the serious attention of more than one energetic missionary in South Africa as a matter closely connected with the health of his flock; and on every ground, æsthetic as well as sanitary, we may wish success to the efforts of those who would devise for the Christianized or civilized natives of Africa a decent African costume, instead of a travesty of our most unbecoming and generally unsuitable European garments.

The effects of a regular and sufficient supply of good food, and of a diet less exclusively of animal food, than the best-fed people were accustomed to in their own kraals, are manifested in various ways in different parts of South Africa, but nowhere in more marked a degree than in the labourers who resort to the diamond fields.

They come from great distances, often more than 600 or 700 miles from Kimberley, and in such great numbers, that on any of the great roads leading to Kimberley, as, for instance, that from Pretoria, the stream of labourers going or returning is so constant and so great that a group of "diamond-field darkies" is seldom out of sight as the traveller watches his road, which is generally visible for some miles in advance.

The wages they get at the diamond fields are very liberal, and the food far more regular and ample than any but rich people receive in their native kraals. The result is a very marked improvement in physique during their stay at "the fields"—so great and so marked that the two lines of men, the one going, the other returning, are, practically, the one lean and ill-favoured, the other fat and well-looking; and it is generally easy as one passes a group of them sitting by the wayside to tell from their condition whether they are going to or from the diamond fields. There is probably no place in South Africa where the advantages to the native population of contact with Europeans are more evident than on the roads, especially those leading northwards and eastwards from the diamond fields to the distant regions whence the supply of labour at the Kimberley mine is chiefly drawn.

Would that the results of such contact were always equally beneficial to the native population! But a very serious increase of syphilitic disease, and its introduction into districts where it was previously unknown, are also results clearly traceable to the resort of native labourers to the diamond fields; and on the evil consequences to the population generally there is no occasion now to dwell.

Still worse are the effects of habits of spirit-drinking, too often contracted by the native labourers at the diamond fields and wherever their labour is in demand for European employers. The subject is one of primary importance in any scheme for improving the condition of the natives, either physically or in any other direction, and it deserves a more than passing notice.

I did not hear of any tribe in South Africa in which the habit of drinking some kind of fermented and exhilarating beverage was not universal before the advent of the white men. There are various kinds of mead in use among some tribes, especially the Bushmen, but the usual Kaffir beverage is a kind of beer, varying much in the mode of manufacture and in strength, but generally made from a mixture of corn meal, either millet or maize, and water, fermented. It is usually thick and pasty, requiring to be stirred up before drinking, slightly acid, and only slightly intoxicating, so that gallons may be drunk at a sitting without producing helpless intoxication. It muddles the drinkers' brain and makes him stupid—affectionate or quarrelsome according to his temper. To be a great drinker is accounted everywhere among the heathen Kaffirs a sign of manhood, and I have heard of incredible quantities being consumed at one bout, *e.g.*, of chiefs who prided themselves on being able to drink nine gallons at a sitting without being incapacitated for talking or locomotion. Such bouts, of course, are not of every day occurrence, they are subjects of much previous talk and preparation, and guests are invited from a distance, and often in great numbers, to partake of a great man's hospitality—but beer of some kind is generally to be found at all times in the kraal of a prosperous Kaffir, and in moderation it is clearly wholesome food.

This, however, can only be said of Kaffir beer unmixed with spirits or other intoxicating drugs, a fashion consequent on intercourse with European traders, and much, I fear, on the increase.

But no adulteration of Kaffir beer can make it as pernicious in its effects as the drinking of spirits—a habit entirely attributable to intercourse with Europeans, and so pernicious as to be deservedly regarded as the monster evil of native association with Europeans. The spirits consumed by the natives are usually bad in quality, partly from bad manufacture, and also from artificial adulteration with various kinds of poisonous intoxicating materials.

It is impossible to over-estimate the mischief thus done to all classes of natives, and the evil is more deplorable because intelligent natives are fully sensible of the evil, and of the ease with which, by various measures which they are not slow to point out, it might be checked.

The evil effects of spirit-drinking are certainly greater and more marked among the Hottentots and their cognate races than among the Kaffirs. But even the Kaffirs suffer more than Europeans, and if the mischief done were no greater than follows the conversion of a sober English workman and his children into a family of gin-drinkers, the evil would clearly be one deserving the most serious attention of statesmen. At present, unhampered by the existence of any enormous excise revenue, the South African Colonies have an easy mode of checking the mischief, by forbidding the indiscriminate sale of spirits to natives not specially authorised by the magistrate. The use of unadulterated Kaffir beer might be left untaxed.

The use of hemp, by smoking or drinking the juice of the macerated leaves or stalks, is the only other form of ordinary Kaffir intoxication, and it is not apparently of European origin.

After making every deduction for the evil results to the native races from contact with Europeans, I have myself no doubt that the balance is greatly in favour of the natives generally, but especially the Kaffir races, having increased in numbers as well as having improved in physique by such contact.

We have hitherto considered chiefly the physical results of European contact. Let us now briefly consider how such contact has affected the general intellectual and moral standard of the native races.

As regards intellectual change, there can, of course, be no doubt of the enormous extent of the change as well of the advantages to the natives, which result from communicating such arts as writing, reading, and printing, and from opening to untutored and unlettered races the vast stores of accumulated knowledge which but for those arts could not be collected or preserved. One hears, occasionally, doubts on such points expressed by those who have known uninstructed and uncivilized persons of more than average natural quickness of apprehension and sagacity ; but no one can seriously weigh the mental powers of the ablest savage ever known, against those of a man of the same race who has received an European education, without feeling that there is no comparison between the intellectual powers of the two men, and that, however great the natural force of intellect may be in the one, it is impossible to resist the conviction that his intellectual power would have been infinitely increased could he have enjoyed the advantages of education accorded to the other.

The question of the moral improvement of natives through contact with European civilization is, I will not say less clear, but it is certainly more controverted. We constantly hear it said

that "an educated or christianized native is a native spoiled, and that natives who have been most influenced by civilized contact and teaching have lost most in truthfulness, docility, and other moral qualities for which, as untutored savages, they were most remarkable."

To what extent is this very common sort of assertion justified by experience? It could hardly be so common in the mouths of people not immoral nor inhumane, without some element of truth or half truth.

Let us consider, in the first place, that it is chiefly as servants, or in some sort of servile capacity, that the natives are judged of by such critics, and that as servants it is not only possible, but certain, that whatever changes, educational or otherwise, follow on contact with Europeans, they would necessarily derogate from the value of the recipient as a servant. We do not require the authority of tradition to assure us that education had not improved Alfred's capacity as a drudge in the neatherd's cottage, and the goodwife would have found the cow-boy apter and more attentive at turning her cakes than the scholar and hero-king.

The doglike fidelity—the unreasoning personal attachment to the hand that feeds and can punish—the habits of implicit obedience, of observance of trusts, under every form of temptation, are natural characteristics of the untutored man, and make a valuable servant when the purely animal instincts are once subdued. Such useful qualities, however, are not necessarily nor often improved by opening the mind through education, direct or indirect. It is a great thing if they are not impaired or destroyed. They are like the speed or agility developed by savage life—useful natural qualities, rarely improved, and sometimes much impaired by civilization.

We may note that similar complaints are made of the same class in every part of the world. Nowhere in Europe, Asia, Africa, America, or Australia do we hear that servants as a class are improving in the estimation of employers who need their services. The fact is, the tendency of all modern teaching is to make those who formerly worked for others now work for themselves. The two objects are not incompatible, and it is the duty of modern education to reconcile them. The process is not always easy, but it is not, I think, more difficult in the case of South African natives than of other races emerging from barbarism and slavery, and I can testify that such reconciliation is habitually effected by those who set about the task with an equal regard for the wants and wishes of the employed, as well as the employers of labour.

In every other respect than as docile drudges, agrarian or

domestic, there can be no doubt of the great moral as well as intellectual and physical improvement effected by the contact of natives with Europeans. Let any one contrast any account of any native community in South Africa as it was before European colonists arrived, with what it is now, as he may find it by personal inspection and experience.

Let us take, for instance, the Hottentots, as described by travellers, from Van Riebeeck and Kolben, down to Barrow and Burchell, and contrast them with such communities as he will now find at Mamre and Gnadendhal. He will hear now, no doubt, lamentations of humane and benevolent neighbours over the idleness, untruthfulness, and depravity of many of the coloured people. "The settlements are not what they might be. The people prefer working for themselves in their own garden patches, to working for wages for farmers, who sorely need their labour, and who are justly entitled to have it. The labour, when given, is often uncertain and dishonest—not always a fair day's work for a fair day's wage. The people are often idle, and fonder of drink than of honest hard work," &c.

That much of the same kind might be said of labourers in almost any part of Europe is obvious; but contrast the least favourable account which can now be given with the most favourable accounts of earlier travellers. In the style of their habitations and dress the change has been from barbarism to civilization, from the almost indiscriminate herding of naked or half-naked savages to decent houses, habits, and dress. Life and property are as secure as in Europe, and if untruthful or dishonest persons are frequently found, how great is the change from the time when truth and honesty were so rare as to enable many harsh judges to say they were unknown!

Let me here quote the testimony I received from a railway engineer, who had many years experience as an employer of unskilled labour out of England,—in Europe, Asia, and America, as well as in Africa. Giving the first place to the English navvy, with no other reservation than that he must be habitually sober, he said he could generally, in a few weeks, train "raw" or fresh Kaffirs to do as much work for the same amount of money as the English workman—not that any one Kaffir would do as much work, or as well as an English navvy, but that receiving lower wages, the Kaffir could be taught to do as much for the money as an Englishman would. But the best of all his African workmen, he said, were the men from Mamre or Gnadendhal Moravian Mission stations, "off-coloured boys," of Hottentot stock; they were well-trained, sober, steady, and intelligent, quite as able to understand, and as trustworthy to execute work as any but good English navvys.

In many parts of the old Colony this class of natives has acquired property in lands and houses, and their conduct would often be a credit to any class of yeomanry or peasant proprietors in our own country.

Mixed up with the Hottentots, are often the descendants of slaves of African origin. The liberty given to them half a century ago was doubtless a fatal gift to many of the less provident and civilized of this class. But as a body they have prospered and improved.

I may here draw attention to the great and manifest improvement apparent outside the Colony in emancipated slaves, after a few years of freedom and civilized training. I have had several opportunities of inspecting a batch of slaves in India and Eastern Africa soon after their capture, and of witnessing the gradual improvement which has taken place during subsequent years of freedom, and of exposure to various civilizing influences. There is far more than mere improvement in physical condition. The type of man is visibly changed, and assimilated to that of superior races in the grade of civilization.

I have never seen any limit to the improvement of which the Kaffir race is capable, nor any reason to suppose that there is any limit beyond which improvement is impossible or even doubtful. The touching biography of Tyo Soga depicts, perhaps, an extreme case; but I saw and heard enough in the country of his birth to feel assured that the picture is not overcharged nor incorrect, and that this was not an exceptional instance.

To raise a people requires something more than a multiplication of individual cases of improvement, but there are no impossibilities to the race to which he belonged, and in which men of natural capacity equal to his are not uncommon.

What, then, is required to give to such men a fair chance of improving themselves, and of helping to raise and improve their fellows?

1. First there is a need of a strong and stable Imperial Government able to protect life and property, and to enforce law and ensure a reasonable certainty of peace, not depending on the life or the will of a single chief.

Such a Government was unknown to South African history before the advent of Europeans. It has always existed more or less in every English Colony.

Such rule as the Romans always aimed at, and the English have been wont hitherto to secure to their subjects, is the first requisite to preserve the numbers and improve the conditions of the native races.

2. Freedom from slavery, and equality in civil rights before the law is essential to any permanent improvement of native races.

3. It is nearly self evident that neither of these requisites can be secured unless it be first settled whether the moral and social as well as the political standard is to be that of the European Colonist or of the native tribe. Not only have the essential pre-requisites as above defined never existed anywhere under any native rule, but they are clearly incompatible with it.

This question has been practically determined wherever the rule of England prevails, and hence follow the consequent conditions of—

4. Education according to English standards, a condition which has been supplied in various degrees both by the various Governments of the different British Colonies, and yet more extensively and completely by the various missionary bodies at work in South Africa.

There are two most important branches of the conditions I have specified of which we must not lose sight—

(a.) The first belongs to the necessity for a Government able to protect person and property. Such a Government cannot exist unless it has the exclusive power of making war and peace. Nor can such exclusive power be effectively exercised unless the Government is able to prohibit private warfare being carried on, either by individuals or by small sections of the community, without the permission or authority from the general Government.

Hence sooner or later arises the necessity for measures of disarmament, or for the prohibition of carrying arms in public without license from the Government.

Much unnecessary controversy has arisen about what is called "the policy of disarmament,"—a controversy which would never have arisen had it been borne in mind that the habitual carrying of arms *ad libitum* in public, naturally and inevitably carries with it the power to use such arms at will; and that if the individual will is directed by any authority save that of the Government, effective protection by the Government of the person or property of its subjects becomes difficult and ultimately impossible; an essential prerogative, necessary to the existence of any civilized Government, has, in such case, been transferred to the possession of individual subjects.

The other condition to which I would refer may be regarded either as a question of police—a branch of the essential condition of protection to person and property—or as a question of education. It is equally important in both aspects, and relates to the unrestricted use of intoxicating substances.

The importance of the subject will be self-evident if it is considered that in no civilized country is the manufacture and sale of intoxicating substances left absolutely free; whilst in

many countries possessing a high degree of very ancient civilization such manufacture and sale, except for medicinal purposes, is absolutely prohibited.

The question is of extraordinary importance in South Africa, where the Government is not always strong enough to do what is, in the abstract, best, if its action would conflict with powerful interests; and where no doubt the evil of unrestrained use of intoxicating liquors is more pernicious to the native races than to Europeans, and is by itself, in the opinion of many, sufficient to destroy a whole race, as it has done in other countries.

I have given reasons for doubting whether this is the case as regards the Kafir races, but there can be no doubt that of all the evils we can inflict on the native races, none can well be greater than the introduction of European means and habits of intoxication; and that our action in introducing them is sufficient to counterbalance all the benefits of civilization which we can confer on them.

The question is one of great difficulty as well as of great importance, and I cannot do better than refer those who take an interest in it to a masterly speech of Mr. Sprigg, the late Premier of the Cape Colony, which they will find printed in one of the late South African blue books.

In securing the conditions necessary to improve the condition of natives in contact with Europeans, by such measures as I have described, it is essential that the superior Government should possess an adequate revenue to meet the inevitable expenses of protecting person and property, and enforcing law. The native community must itself supply the means, and it is to be regretted that any doubt should ever have been raised as to the ease with which this may be effected, without causing any of the popular discontent apt to follow the imposition of new taxes.

Time does not admit of my doing more than allude to the example set by the Native administration of Natal in this matter.

It used to be said in Natal that every hut had among the fowls one which was known as "Somtsu's hen" (Sir T. Shepstone), whose eggs sufficed to pay the hut-tax; whatever foundation there may be for this story, there can be no doubt that the Natal hut-tax was an extremely light contribution to the expenses of protection, as compared with the contributions in cattle, grain, and labour exacted by the most moderate of native chiefs. But light as the taxation was, it sufficed to cover the expenses of government. I have never heard an objection to this form of taxation, which was not traceable to the desire of the chiefs to retain their power of unlimited taxation.

The headmen of the kraals, as far as I could learn, were less apt to object to the Government impost.

Let me note in passing that direct taxation for the benefit of Government has a very considerable influence in superseding that authority of the great tribal chiefs, which it was the object of rulers like Chaka to destroy, and which is, in fact, in its unchecked exercise incompatible with the authority of any centralized Government. Indeed, it would not be difficult, did time admit, to show that in the great work of civilizing a South African Native community, taxation by Government exercises as great an influence as the security of individual rights in separate property and the enjoyment of good wages, which are among the most effectual practical means of promoting civilization in such communities.

Before quitting this part of the subject, referring to the extent to which the European races have checked the advance, and are more or less Europeanizing the native races, we ought to consider whether there is anywhere evidence of a reflex action on the European Colonists; whether the natives are anywhere pressing back the Europeans, or denationalizing them, or forcing them to conform to native authority and native ideas. Whether there is in South Africa any apparent possibility of the native races acting on the invading Europeans, as the northern barbarians of Europe acted on the Roman invaders in the decline of their empire, absorbing their civilization as well as their imperial power. Such a danger was apprehended by many acute observers from the Zulus before their power was broken, and it is clear that on the northern and north-eastern border of the Transvaal the European immigrants have not maintained the positions first taken up by the Trek Boers. They have been expelled from many districts they then occupied, and in others have been allowed to remain only on payment of tribute or black mail.

Again, in Damaraland, though a considerable influx of Trek Boers took place about nine years ago, and at various periods since, it has been doubted whether they can maintain their own complete independence, or the degree of civilization which their fathers had preserved.

It is not safe to predict results in such cases, but my impression is that the question is one of the comparative inherent vigour of the two races whose advanced guards are thus meeting. The Trek Boers, like the rest of the white colonists in South Africa, belong to the swarming European nations of northern Europe. They derive their impulse not merely from inherent love of independence or of change, but from the pressure outwards always felt by nations in the

swarming or emigrant stage of existence. Emigration to South Africa may be checked or diverted to Australia or America; but it will not cease. The advanced guard of Trek Boers may advance too fast, and be repulsed or absorbed in the vast native populations on whose territories they have intruded; but there is an impulse behind which will impel others onwards to support them, and to fill their places; and as long as their parent race retains its inherent vigour, and the civilization which gives it the superiority over other equally vigorous but uncivilized races, and as long as it continues in the swarming stage, so long the ultimate result will always be that the European invader will prevail over the native occupants, and expel, subdue, or assimilate the weaker race.

It may seem strange that I should hitherto have said but little directly on the influence of missions in altering the physical intellectual, or moral condition of the native races.

This has not arisen from any doubt whether a discussion regarding the effects of missions would be appropriate in a lecture delivered before this Institute, but simply from the fact that, in South Africa, at all events, the missions of the various Christian churches embody, in the most concentrated and active form, all the most efficient European influences at work to change the character of native existence.

It is otherwise in India, where the existence of powerful, active, and ancient forms of religious belief greatly restrict the dominant European race in the use of any but secular influence and teaching, and render the teaching of the missionary something apart and distinct from the teaching of the secular ruler. No such restriction exists in South Africa. The European government there, as elsewhere, refers for its code of principles of action to the same documents which contain the moral precept as well as the religious beliefs of European nations; and the European missionary is not only in general the person best able to instruct his native pupils in the contents of those documents, but he is in most cases the only European to be found whose direct business it is to impart such instruction.

The Government official in Africa or in India may expound and apply the law when malefactors or litigants appear before him, but it is no part of his direct duty to train those subjects to his authority to understand or obey the law, and this function necessarily falls almost exclusively on the missionary, whose teaching may be taken as the only practical embodiment of European law and principle which is accessible to the natives.

Of other results of religious teaching further than they affect the physical condition and moral and intellectual status of the pupil, this is not the place to speak; I need only say that no

educated Englishman who has seen much of educated Kaffirs is likely to doubt that the race possesses at least as much aptitude for receiving and analysing such truths and as good a chance of moral and intellectual growth under such teaching, as the captives at Rome who are said to have moved the compassion of St. Augustine.

What then—to sum up—are the laws or invariable facts affecting the relations between civilized and savage life, as bearing on the dealings of Colonists with Aborigines, as we may gather them from our experience in South Africa?

1. That it is possible for the civilized to overcome and destroy by war the uncivilized and savage race—to expel or drive them back—or to turn them aside in their migrations, admits, I think, of no doubt. In such contests the civilized power, if vital and growing, must in the long run prevail.

2. That simple proximity of the civilized to the uncivilized race has led, or is leading, to the extinction of the savage race, seems probable in the case of the Bushmen—is very doubtful in the case of the other Hottentot or tawny-skinned races, and clearly has not occurred and is not likely to occur in the case of the Bantu family—the Bechuana, the Zulu, and the Kaffir races.

3. That the changes which have occurred in the native races, consequent on the proximity of European colonists, are an advance in civilization and approximation to the types of European civilization—marked in the case of the Hottentot, but yet more marked and rapid in the case of the Bantu races, and that there seems to be no practical limit to the changes which may thus take place.

4. That the essentials necessary to such development are—

- (a.) Such a peace as the Romans and the English elsewhere have ensured to subject races, as a consequence of civilized sovereignty—a peace bringing with it—

- (b.) Protection for life and property, and practical equality before the law, leading to a substitution of individual property for tribal commonage, and involving logically the abolition of slavery and of all sale of man or womankind; also of private rights of making war, and consequently of carrying arms, except under authority of the supreme ruler.

- (c.) Power of local legislation for the purpose of securing the objects enumerated, such legislation to be directed on the principles recognised in civilized European countries with a view to secure education in the arts of civilized life, and in such knowledge as forms the strength, and furnishes the rewards of civilization.

- (d.) Legislation should also be directed to place such restrictions on the manufacture and sale of intoxicating substances as are

needed to prevent their ruining the health and retarding the material welfare of the native community.

(e.) To secure all these objects an equitable form of civilized taxation is needed, sufficient to meet the expenses of administration.

DISCUSSION.

Mr. JOHN EVANS expressed his thanks for the Paper, in which, besides the immediate subject-matter, there were so many interesting details with regard to the various races now occupying South Africa. He was glad to hear the references to the practice of ancient Rome, with regard to the foreign countries brought under her sway. It was, indeed, her special gift "to spare the subject and repress the proud." He could not, however, quite agree with the author in placing the ancient Britons, when first brought in contact with Rome, on the same level as any of the natives of South Africa when first exposed to European influences. Long before the time of Julius Cæsar the Britons had commercial relations with Gaul, and for nearly two centuries they had possessed a coinage. During the ninety years which elapsed between the invasion of Julius and that of Claudius, they made further progress in civilization, became acquainted with letters, and built important towns. It was also to be borne in mind that, though foreigners, most of the nations who came under the Roman dominion were practically members of the same great Aryan family, and did not differ from them in anything like the same degree as the coloured races of South Africa do from Europeans. He quite agreed with the general views expressed by Sir Bartle Frere at the end of his Paper—but to ensure the progress of civilization among those brought in contact with our colonists, not only was peace a necessity, but time during which new ideas might take root. It was to be regretted that so much mischief was frequently done by the force of bad example, but still the careful administration of justice in a Colony, the obedience to law, and the general regard for morality, could not but have their effect. A firm adherence to fixed principles, and an absence of vacillation and change when treating with savage nations, appeared to him to be of the highest importance, and looking at the widespread influence of this country throughout the world, he trusted it might always be for good, and that Britain had yet a glorious mission of civilization before her.

Mr. F. GALTON would refer first to the purely ethnological part of the memoir, which dwelt upon the difficulty of defining the Bantu race. He thought that ethnologists were apt to look upon race as something more definite than it really was. He presumed it meant no more than the average of the characteristics of all the persons who were supposed to belong to the race, and this average was continually varying. The popular notion seemed

based upon some idea like that of a common descent of the different races, from a parent Noachian stock, whence the aborigines of each county were derived, and where they lived in unchanged conditions till the white man came. Nothing can be further from the truth. We know how in South Africa the Bantu population has been in constant seethe and change; how, in much less than a single century, Chaka and his tribe, Mosilekatse and his tribe, and others, have in turn become prominent nations, and the average of the whole Bantu population must thereby have differed at different times. This same fluctuation of the average qualities of the population must, for anything we can see to the contrary, have gone on for many thousands of years. He therefore thought the phrase of Bantu race, as signifying some invariable and definite type, to be a mere chimera. In the earlier part of his memoir, Sir Bartle Frere had compared our mode of treating uncivilized races to that of the Romans. He heartily wished that the resemblance held in certain essential points. Our military hold was as firm, our tolerance of local customs was as great, our dealings were as just, and more just than theirs. But we did not amalgamate with them as the Romans did, we did not intermarry; by means of our missionaries we pressed upon them a form of religion which was not the most congenial. Our civilization was stiff. This, and much more, was pointed out in a very able and most pathetic memoir by Mr. Blyden, the present Minister of Liberia to England, who is a full-blooded negro. The article appeared in "Frazer's Magazine" some years ago, and it showed the repressive effect of White civilization upon the Negroes, as contrasted with that of the Mohammedans. It was a shame to us as an Imperial nation, that representatives of the many people whom we governed, did not find themselves more at home among us. They seldom appeared in such meetings as the present one; they did not come to England. We did not see them in the streets. It was very different in ancient Rome, where the presence of foreigners from all parts of the then known world was a characteristic feature of every crowd. He did not now suggest any action, but merely wished to lay stress on this serious drawback to our national character as rulers of a great Empire. He thought they were greatly indebted to Sir Bartle Frere for introducing to public notice so important a subject as the best form of conduct of civilized races towards their less civilized neighbours, and he trusted that it would meet with that full and many-sided discussion which so important a question deserved.

Professor FLOWER remarked that the results of the contact of one race with another were greatly affected by geographical or climatical conditions. In all temperate climates, where Europeans established themselves, the natives disappeared, the process being much more rapid in the case of islands than upon continents. In tropical climates, unsuited to the permanent residence of Europeans, the native races retain their numerical supremacy. The degree of

relationship between the different races spoken of must also be taken into consideration. The ancient Britons and the Romans, though in a different condition of culture, were closely related, and there was no difficulty for the one to adopt the civilization of the other, but with the English and Zulus, and still more with the English and Australians and Tasmanians, the relationship is far more remote. Such considerations should give greater importance to the study of anthropology by statesmen and colonists than has hitherto been accorded to it.

Sir RICHARD TEMPLE and the PRESIDENT also joined in the discussion, and Sir BARTLE FRERE briefly replied.

On the motion of Professor FLOWER, seconded by Mr. RICHARD BIDDULPH MARTIN, M.P., a vote of thanks was unanimously carried to the PRESIDENT and to Mrs PITT RIVERS for their kindness in inviting the members of the Institute to hold the meeting at their private residence.

ANTHROPOLOGICAL MISCELLANEA.

NON-MUSSULMAN ARABS.

To the Editor of the Journal of the Anthropological Institute.

Sir,—I infer from the remarks made by Mr. Bouverie-Pusey on my paper "Notes on the Origin of the Malagasy," published in the last number of the "Journal," that he supposes all Arabs in the eighth century to have been Mussulmans. This opinion is erroneous. M. Vivien de Saint Martin, in his "Nouveau Dictionnaire de Géographie Universelle," *Art. "Arabie,"* after stating that the Bedouins still retain reminiscences of their ancient Sabaism, remarks, "Il y a même dans les montagnes du Hedjaz méridional, entre la Mekke et le Yémèn, des tribus chez lesquelles l'Islamisme n'a pénétré qu'avec la conquête onahhabite, au commencement du siècle." The territory between the Hedjaz and Yemen is inhabited by a large number of independent tribes, and the same appears to be true of the Hadramaut and Mahra, between Yemen and Oman. M. Saint Martin says, as to the inhabitants of this territory, "Entre le Yémèn et l'Oman, existe une population inculte, presque complètement isolée du reste de l'Arabie sans aucun commerce avec les étrangers," and he supposes them to be remnants of the ancient population of the country—Cushites or Ethiopians—referred to by Arab tradition as the people of Ad. This ancient race was thought to have become extinct before the establishment of the Joktanite Arabs in the Peninsula, and, according to the Koran, it was destroyed by God for its idolatry. As these *Aribah* of the southern coast continued to exist, it is extremely probable that Sabaism, with many of its superstitious customs, lingered among them for centuries after the establishment of Mohammedanism in other parts of Arabia. Even the Arabs of Oman appear to have retained a remembrance of the ancient planetary worship; and the occult sciences, particularly the science *sikhr*, or sorcery, to which Mr. Dahle traces the Malagasy *sikidy*, is still cultivated among them.—Yours, &c.,

C. STANILAND WAKE.

13th January, 1882.

The Hon. LEWIS H. MORGAN.—The scientific world, and especially American anthropologists, are mourning the loss of one who did much to make anthropological research popular among his own

countrymen, and to extend the knowledge of the manners and customs of the American Indians over the whole world. The Hon. Lewis H. Morgan died at Rochester, U.S.A., on December 17, 1881, aged 63. Mr. Morgan's researches into the history of the various tribes of American Indians, with kindred observations collected by him from various sources in different parts of the world, were published by the Smithsonian Institution, under the title of "Systems of Consanguinity and Affinity of the Human Family." His great work, "Ancient Society," was published in 1877. In this he treats: first, of the growth of intelligence through inventions and discoveries; secondly, of the growth of the idea of government; thirdly, of the growth of the family; and, fourthly, of the growth of the idea of property.

His last book, "House Life and Architecture of the North American Indians," just published by the Smithsonian Institution, was placed in his hands only a few days prior to his death, when, says the chronicler, "he feebly turned the pages, and as feebly murmured, 'my book,'" and this was almost his last intelligent act, whilst his last public appearance of moment was in the capacity of President at the Boston meeting of the American Association for the Advancement of Science.

Mr. Morgan was also known as a naturalist, and his work on "The American Beaver" is one of great scientific value.

A. W. BUCKLAND.

TRADITIONAL ORIGIN OF GRASS APRONS.

Aprons of grass form to this day the only clothing of the daughters of Eve in a district near the Travancore backwater. "The leaves of a certain water-plant are cut into lengths of a foot long and tied round the waist in such a fashion that the strings unwoven hang down in a bushy tail behind and present the same appearance in front reaching nearly to the knees. This is accounted for by a tradition that in former days a certain high caste man of that region had been sewing various grains and planting vegetables in his field but had found out that his daily work was in some unknown way frustrated, for whatever he planted or sowed in the day was carefully picked up and taken when men slept. So he set a watch and one night he saw, coming out of a hole hitherto unknown to him, certain beings like men, but quite naked, who set to work destroying his hopes of a crop. Pursuing them he succeeded in catching a man and woman, and he was so impressed with shame at their condition that he gave the man his own upper cloth which was hanging on his shoulder and made him put it on, but not having one to spare for the woman she (following Eve's example) made herself an apron of grass as above described."—*Madras C. M. Record.*

